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ABSTRACT

This document consists of the five issues of the journal issued during 1992. Articles focus on the following major topics in gifted and talented education (GATE): (1) grouping and tracking; (2) cultural diversity; (3) educational reform and cooperative learning; (4) gifted girls; and (5) young gifted children. Major articles include the following: "The Relationship of Grouping Practices to the Education of the Gifted and Talented Learner: Executive Summary" (Karen B. Rogers); "Ability Grouping Research Reviews: What Do They Say about Grouping and the Gifted?" (Susan D. Allan); "The Effects of Grouping on Gifted Students" (Barbara Clark); the National Association for Gifted Children's Policy Statement on Grouping; "Cultural Diversity in Gifted Education: A Better Chance at Succeeding" (Elinor Smith and Rosa Perez); "Around and Through Test Scores: Discovering the Gifted Hispanic Student" (Carol Kaylor); "Serving the Culturally Diverse" (Anne Bensen); position statements of the California Association for the Gifted in glossary form; "Yo Puedo: Program for Gifted Migrant Students" (Nancy Leon); "GATE: Blueprint for Educational Reform" (Valerie Terry Seaberg); "Cooperative Learning and the Academically Talented Student" (Ann Robinson); "Scapegoating the Gifted" (Linda Kreger Silverman); "Optimizing the Future for Gifted and Talented Students from Underrepresented Populations" (Deborah K. Bellflower); "How Schools Shortchange Girls: Implications for Parents and Educators of Gifted Girls" (Carolyn M. Callahan); "What It Means To Be Gifted and a Woman" (Debra Russell and Nina Alexander); "Factors Affecting the Achievement of Culturally Diverse Gifted Women" (Margie Kitano and Carol Perkins); "Living Out the Promise of High Potential: Perceptions of 100 Gifted Women" (Kathleen D. Noble); "Reverse That Pendulum: Protecting Your GATE Program in Perilous Times" (Ann Lord); "The Development of Giftedness" (Barbara Clark); "These Are Pioneering Times in Early Childhood Gifted Education" (Joan Franklin Smutny); "A Learning Center Approach to Providing a Differentiated Curriculum to Primary Students" (Sandra Kaplan); "Early Childhood Education for the Gifted: The Need for Intense Study and Observation" (Maurice D. Fisher); "Nurturing Giftedness in Young Children" (Wendy C. Roedell); and "An Analysis of the Research on Ability Grouping: Historical and Contemporary Perspectives..Executive Summary" (James A. Kulik). (DB)

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COMMUNICATOR

GROUPING/TRACKING

The Relationship of Grouping Practices to the Education of the Gifted and Talented Learner:
Executive Summary

by Karen B. Rogers
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The recent debate on ability grouping has raised a number of educational issues for teachers and school administrators. In efforts to restructure or transform schools, thereby improving the general level of achievement for all students, many reformers have argued for the elimination of most forms of grouping by ability. They have also suggested that grouping be replaced by mixed-ability classrooms in which whole group instruction and cooperative learning are the major instructional delivery systems. In many cases this restructuring has included the elimination of accelerated classes and enrichment programs for the gifted and talented in the name of reform. "The Research" has been cited by these reformers as the rationale for such classroom changes (George, 1988; Slavin, 1987; Oakes, 1985). Unfortunately, the research does not appear to have been searched comprehensively, but the oversight is also understandable. With a literature base of over 700 studies on ability grouping (Kulik & Kulik, 1982) and over 300 studies on cooperative learning (Johnson, Johnson & Maruyama, 1983; Slavin, 1984), it is highly unlikely that any researcher has had the resources or time to make an effective analysis of these literature bases. In fact, there have been 13 syntheses of research in the past nine years, all of which represent analyses of parts of these bases. By analyzing 13 syntheses together, however, one can acquire a sounder understanding of what the research really has to say about grouping by ability in general and about grouping students who are gifted and talented for the purposes of enrichment and acceleration, in specific.

Two synthesis techniques have been developed in recent years to accommodate the huge research data bases we have accumulated over time: meta-analysis and best-evidence synthesis. In both techniques, the synthesizer must conduct an exhaustive search of the literature to locate all research, and then attempt to average across all the studies located to calculate a general effect for the instructional practice being synthesized. The metric of Effect Size, a procedure introduced by Gene Glass in 1976, has been used in these syntheses techniques (except the Gamoran & Berends synthesis, 1987) to communicate the comparative size of academic and nonacademic outcomes when all research on an instructional practice is combined. Effect Sizes of +.30 or higher are accepted as indicative of substantial gain of the experimental practice over its control (e.g., ability grouping vs. traditional classroom instruction without grouping). Such an Effect Size would indicate an approximate three months' additional gain on a grade-equivalent score continuum of a treatment group's achievement over the control group. Table 1 (on page 33) displays a summary of the Effect Sizes reported across the 13 syntheses for the variety of grouping practices currently used with students who are gifted and talented.

Continued on page 32

PRESIDENT'S COLUMN

Sandra Kaplan

Schools and Society

The current emphasis and trends regarding contemporary educational restructuring practices cannot be examined without a societal reference. While it is generally agreed that the school's responsibility is to prepare students for society, there are enormous disparities between today's educational demands and societal concerns and realities.

- Today's schools are expected to stress cooperative learning while society emphasizes competition as resources and opportunities diminish.
- Today's schools are expected to abandon the labeling of students and the defining of specific criteria that distinguish some learners from others while society emphasizes consumerism dependent on label recognition and attributes that designate one product's superiority over another's.
- Today's schools are to stress the inclusion of more students in the GATE program while society recognizes that a lack of sufficient funds seriously limits the number of students who can attend four-year state universities.
- Today's schools are expected to stress heterogeneous grouping while communities still establish both economic and social barriers that foster separation rather than integration of people.
- Today's schools are expected to provide a challenging and intellectual curriculum and to stress the value of work while society appears to value anti-intellectual and leisure activities.

There is potential in each of the restructuring features to benefit all students. However, it is unfair to assume that the adoption and implementation of these restructuring practices in our schools can be effective without commensurate restructuring of elements in the society.

(Thanks to Kaz Tanaka, Janet Ward, and Evie Hiatt for listening and adding to this commentary.)

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CALENDAR

Super Saturday Program with Rick Shope
Discover Art Through Mime

January 11, 1992 Bakersfield Museum of Art
January 18, 1992 San Jose Museum of Art
January 25, 1992 Fresno Museum of Art
Contact CAG office for ticket information.

January 25, 1992 8:00 am to 12:50 pm
Orange County Council/GATE
19th Annual Conference
Navigating Changes: GATE's Course in Restructuring
UCI Student Center, Irvine CA
Keynote Speaker: **Valerie Terry Seaberg,** Maine State Department of Education; President, State Directors of Gifted/Talented Education
Contact Pat Lawrence, 12702 Adrian Circle, Garden Grove CA 92640

February 21-23, 1992 **30th Annual CAG Conference**
Cast a Wide Net
Long Beach, CA
The complete list of sessions and last chance to register has been mailed to all members and to each district. Flyers about the Parent Mini-conference on Saturday are available in both Spanish and English. Call the CAG office if you need a copy.

March 19, 1992 **Open-GATE Teleconference**
National Report on Gifted Education

March 28, 1992 **Los Angeles City/County GATE Conference**
John Muir High School, Pasadena

April 1-2, 1992 **Open-GATE Program on Curriculum**

CAG Leadership Camps (7th-8th graders)
Call the CAG office for information.
April 24-26, 1992 **South**
Camp Nawakwa, San Bernardino Mts.
May 22-24, 1992 **Central**
Calvin Crest, Oakhurst

IN THIS ISSUE

Grouping/tracking is one of the key issues in educational restructuring. This issue of the *Communicator* contains a number of articles on grouping, many of which have appeared previously. Many educators and parents have asked for information on this topic, so an editorial committee thought it might be helpful to publish a collection of articles in one issue.

Articles on Grouping/Tracking

Articles with an asterisk have not appeared previously in CAG publications.

Other Articles and Features

Grouping and Tracking: An Opinion

by Evie Hiatt

The very words, "grouping and tracking," are enough to incite strong feelings in educators. To some, they are a symptom of covert, subtle racism that continues to exist in our society. Those who feel this way point to the over-identification of racial and ethnic minority groups in programs designed for special education and the under-identification of these same groups in programs for gifted students.

Other educators stress the difference between flexible grouping practices and "tracking." The latter tends to keep a child in one program from the time of initial assessment to the conclusion of that student's school career. Some claim that heterogeneous grouping is also a form of tracking and that providing the same services to all students regardless of need is ultimately detrimental to more students than recent tracking practices. Unfortunately, the education of gifted students stands at the center of this debate.

It is an important distinction to discuss "the education of gifted students" as opposed to "programs for gifted students." When they are viewed as one and the same, tracking may well occur. A student could be placed in a program at a given time and then remain there regardless of whether student needs or interests change, or whether the program and the student are a good match.

Educators must understand that our purpose is to provide appropriate services to all students in our classes. If services can be provided in the regular classroom, in large group situations, or in cooperative learning situations, then that is where services should be provided. However, with the numerous new assessment procedures that are being developed, we will be more cognizant of individual differences, in terms both of strengths and weaknesses, that must be addressed. Based on our new-found information, we will be able to tailor services more specifically to student needs. In some cases those needs will be better met by grouping and regrouping students for instruction, both inside and outside the core classroom. It means that a more effective partnership can be forged between educators who are providing for the needs of large groups of students and specialists who are working with students and their specialized needs. At the least, this means that "programs" for gifted children will look very different than they do today. At its best, it also means that "developmentally appropriate" instruction will be available for more children, including those who are gifted.

Currently, the phrase "developmentally appropriate" is linked to general attributes of specific age groups (and what grouping pattern is more symptomatic of tracking than placing students in grades by age alone?) and often tied to Piagetian theories of what children can and cannot do at given points in their lives. However, to be truly developmentally appropriate, we must look at the individual child in terms of his or her environment. When we talk about differentiating curriculum, we are discussing tailoring a general curriculum to the specific needs of each learner. We are making the curriculum developmentally appropriate for each child in our classrooms, including those with outstanding talent.

If we contend that to eliminate tracking, we must eliminate services appropriate for gifted students, then we are guilty of yet another form of prejudice and tracking. The belief that programs for gifted students are for white middle-class students and should therefore be eliminated, is often expressed by educators who seek to improve services for all students. There is no question that gifted programs have historically had a disproportionate number of middle-class white students. New state laws and rules across the country have attempted to rectify the situation, and progress is clearly being made. Since 1985, the number of African-Americans who enrolled in Advanced Placement classes has increased over 110%, the number of Native Americans has increased 125%, and the number of Hispanic students has increased by approximately 140%.

The work that is being done to make programs for gifted students more inclusive has been instrumental in changing our attitudes toward all students and has come to symbolize the statement, "All children can learn." For too long that phrase implied that all students could learn the basic skills. However, as students of all hues and cultural backgrounds are being more appropriately placed in programs for gifted students, educators are realizing that students can not only learn, but excel. It is not just educators who must be convinced of this fact. Dr. Susan McBey notes that research indicates that African-American students from urban areas often ridicule their contemporaries as "acting white" when they do well in school. Programs for gifted students, when ethnically balanced and designed to serve the needs of the students, prove that it is not "white," to excel. Excellence is reflected in individuals from all racial, ethnic, and economic groups who have the persistence and talent necessary for high performance.

Now, more than ever, the need for recognizing and serving exceptional talent is important – both to the students themselves as well as to the pride and integrity of the subpopulation to which they belong. The primary effort should be on providing the appropriate services rather than on expending effort on advocating for one particular grouping pattern.

Evie Hiatt is Division Director, Gifted and Talented Education, Texas Education Agency, 1701 N. Congress Ave., Austin, TX 78701-1494; 512/463-9455.

Ability-Grouping Research Reviews: What Do They Say about Grouping and the Gifted?

by Susan Demirsky Allan
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If educators are to make informed decisions based on the findings about ability grouping, they must study the original *research and be sure that the questions they are asking are the same ones posed by the researchers.*

The questions of whether, when, and how to group students according to academic ability represent some of the most difficult and frustrating challenges facing educators today. Seeking to help answer these questions, researchers have applied new techniques of research review to this subject. Two prominent sets of reviews – the meta-analyses of James Kulik and Chen-Lin Kulik of the University of Michigan (1982, 1984b) and the best-evidence syntheses of Robert Slavin of Johns Hopkins University (1986, 1990) – attempt to synthesize this information. These reviews, their techniques, and their findings are important to educators who need to make decisions about grouping that are based on accurate knowledge of its effects. This article provides both a synthesis and a critique of these research reviews of ability grouping with the aim of clarifying for practitioners how these synthetic techniques affect the results; what research questions are being asked and answered; and what is and isn't established by the research.

Understanding the Methodology

Both the meta-analytic and best-evidence techniques of research review treat all included studies as equally valid. Although the reviewers set criteria for omitting clearly inadequate studies, they give all other studies the same weight, without regard for their relative quality. The best-evidence synthesis is more selective in its criteria, but then becomes vulnerable to the charge of hand-picking the evidence. (For a description of these two methods of research review and the more traditional narrative review, see page 6.)

A methodological problem that applies primarily to the gifted (the top 3-7 percent) and to a lesser degree to high-ability students (the top 33 percent) is the use of standardized test scores. On most studies included in the meta-analyses, these are the main measure of achievement. The scores of gifted students usually approach the ceiling on standardized achievement tests, making it very difficult to show significant academic improvement of their part. The ceiling effect of standardized tests is also a factor – although to a lesser degree – in evaluating the improvement of high-ability students. Certainly, at the minimum, the degree of academic improvement in the studies would be much greater if it weren't masked by the ceiling effect of standardized testing.

This problem stemming from the inclusion of high-ability students may affect all the major studies. However, I have had difficulty obtaining exact data on the percentage of studies included in the analyses that use standardized test scores. James Kulik (personal communication) reports that the majority of studies in his meta-analyses used such data. In his study, Slavin (1986) reported (personal communication) that almost all studies where effect size was computed used standardized data (raw scores, grade equivalents, or standard scores). In both the meta-analyses and the best-evidence synthesis, some forms of grouping were found the improve the academic performance of gifted children, and it is likely that the real benefits were greater than could be shown by the method of measurement.

In a more recent synthesis of grouping in secondary schools, Slavin (1990) raises an additional problem concerning the use of standardized testing as a measurement of the effects of grouping on student achievement. Discussing the lack of positive evidence for grouping in his study, Slavin says, "One possibility is that the standardized tests used in virtually all the studies discussed in this review are too insensitive to pick up effects of grouping." Insensitivity of the tests in indeed one possibility. Another is the criticism commonly raised by teachers, particularly at the secondary level, that the tests don't evaluate what they are teaching. One possible check on this difficulty is to compare student progress in ability-grouped vs. heterogeneous classes using teacher-made tests. These are less commonly used in research because they are not comparable across teachers and subject areas. In fact, in both Slavin's elementary synthesis (1986) and secondary synthesis (1990), one of the criteria for inclusion of a research study was that "teacher-made tests, used in a very small number of

studies, were accepted only if there was evidence that they were designed to assess objectives taught in all classes" (Slavin 1990). Clearly, if ability grouping is being used effectively, the objectives should *vary* among the different classes. Therefore, testing for the same (probably minimal) objectives will not permit any benefits of ability grouping in average-or high-ability classes to be demonstrated. A similar problem, related to differentiating instruction appropriately for the students being taught, arises again when we examine the research questions being asked.

Examining the Research Questions

The most serious difficulty with Kulik and Kulik's meta-analytic reviews and Slavin's best-evidence syntheses on grouping appears when we delve into the studies that actually make up these syntheses. The research questions actually being asked may prove very surprising to educators who have been reading general accounts of the analyses.

One question *not* asked in the Slavin research was whether programs designed to provide differentiated education for gifted or special education students were effective. Those programs were systematically omitted from Slavin's synthesis on the basis that they "involve many other changes in curriculum, class size, resources, and goals that make them fundamentally different from comprehensive grouping plans" (Slavin 1986). It is ironic[1] ... some school systems are us[ing] ... Slavin best-evidence synthesis to make decisions about gifted and special education programs when such an application clearly is inappropriate. Slavin (1988) addressed such programs in a later narrative review in which he argued that the research on them was biased and the programs were ineffective. However, this subject was not researched in the systematic fashion of the best-evidence synthesis, and, logically, that synthesis cannot provide guidance on it.

Kulik and Kulik did address the effectiveness of gifted programs in their

Methods of Reviewing Ability-Grouping Research

Three main techniques have been used to review research in the area of ability grouping: narrative review, meta-analysis, and best-evidence synthesis. Narrative review is the "traditional" method in which the reviewer surveys and comments in detail upon individual studies in the literature.

While narrative review permits a great deal of evaluative commentary on the studies it includes, reviewers have always struggled with the difficulty of comparing studies with different results and different standards of measurement. Meta-analysis and best-evidence synthesis, the methods used in the two sets of reviews that form the focus of this article, were developed in order to make the results more replicable and quantifiable than the narrative technique permits.

The meta-analytic technique (used by James Kulik and Chen-Lin Kulik) requires the reviewer to locate studies of an issue through objective and replicable searches, code the studies for salient features, and describe study outcomes on a common scale. Kulik and Kulik itemized additional qualifications for the use of a study in their meta-analysis. In order for a study to be included in their review, the results had to be reported in quantitative form; the results had to be available from a conventionally instructed control group as well as from the one receiving the experimental treatment; the control group had to be similar to the experimental group in aptitude; and, very importantly, the studies had to take place in actual classrooms, not labs.

The best-evidence synthesis technique (used by Robert Slavin) is a combination of meta-analysis and narrative review. It has many characteristics in common with meta-analysis, including the computation of Effect Size[1] and the clear specification of inclusion criteria. There are, however, several crucial differences. One important difference is that studies were included whose Effect Size could not be computed. Such studies are characterized in the data analyses as positive, negative, or zero rather than excluded. In addition, individual studies and methodological and substantive issues are disclosed in the detail typical of narrative reviews. Finally, the Slavin review included studies that used calculations that Kulik and Kulik considered mathematically inappropriate for their meta-analytic techniques.

[1] *Effect size is computed as the difference between the mean scores of experimental and control groups, divided by the standard deviation of the control group. It provides a common scale that standardizes the various measurements used in different studies (Kulik and Kulik 1989 and Slavin 1989, 1990).*

References

Kulik, J.A. and C.-L. Kulik. (1989) "Effects of Ability Grouping on Student Achievement." *Equity and Excellence* 23, 1-2:22-30.

Slavin, R.E.,(1989) "Grouping for Instruction." *Equity and Excellence* 23, 1-2:31-36

Slavin, R.E..(1990) "Achievement Effects of Ability Grouping in Secondary Schools: A Best-Evidence Synthesis." *Review of Educational Research* 60, 3:471-499.

meta-analyses, including such programs when their other methodological criteria were met. Their results show clear positive gains for students in gifted programs, which they attribute to the specialized curriculum and materials used and to the training afforded teachers in such programs.[1]

The importance of the research question being asked arises again when we examine Slavin's (1986) review of regrouping in the elementary school for reading and/or mathematics. Five of seven studies in the best-evidence synthesis found that students learned more in regrouped than in heterogeneous classes, while two found negative results. However, in at least one of the studies in which students in regrouped classes failed to outperform those in heterogeneous classes (Davis and Tracy 1963), no attempt was made to provide differentiated materials to the regrouped classes. Use of the same materials for all groups also occurred in a different study, included in both Slavin's and Kulik and Kulik's analyses, where students were regrouped for reading (Moses 1966). Despite this inadequacy of educational design, Moses found weak positive evidence for regrouping.

A study by Koontz (1961), the other study with negative results noted in Slavin's synthesis, involved regrouping for three subjects (math, language, and reading) and, therefore, had as much similarity to departmentalization models as to limited regrouping. Students changed classes three to four times a day. Most significantly, in the regrouping, language arts and reading each became separate classes, a very questionable educational practice. In contrast, a study by Provus (1960) in a suburban district showed clear and sometimes dramatic gains for students who were both regrouped for mathematics and provided with ability-appropriate materials. There were cases of 4th graders who finished the year working on an 8th grade level. Importantly, however, the gains were not limited to high-ability students. There were also clear, if less spectacular, benefits for both average and low-ability students.

It is difficult to imagine any rational disagreement that could stem from these results. It is hardly reasonable to suggest that students should be ability-grouped without the use of appropriate curriculum and materials. Grouping while using the same materials and curriculum for all groups of students is not supported by any segment of the education profession. But it appears that some researchers are attempting to ask the "pure" research question of whether grouping as a single isolated factor has any effect on student achievement. The answer, not surprisingly, is mixed, although generally positive. However, this is not the question that educators and parents are asking. They want to know whether grouping, with appropriately differentiated instruction, has any effect on student achievement. When that question is addressed, the results provide a stronger positive answer in both math and reading for all groups of students.

Interpreting the Findings

The most destructive aspect of the controversy over ability grouping is the misrepresentation of the findings, particularly those of Slavin's best-evidence synthesis (Slavin 1986), in the popular media. Headlines such as "Is Your Child Being Tracked for Failure?" (*Better Homes and Gardens*), "The Label That Sticks" (*U.S. News and World Report*), and, the most sensational of all, "Tracked to Fail" (*Psychology Today*) distort the research findings and undermine serious discussion of an important issue. The *Psychology Today* article begins with a ridiculous comparison to the categorization of alphas, betas, and gammas in *Brave New World*! There has been too little reaction from the educational community to bring the discussion back to a substantive level. The publications cited above, as well as some general education publications, fail to take note of Slavin's very important and worthwhile distinction between types of grouping. They also paint his research as having determined that grouping is academically harmful, which is not the case. The meta-analyses of Kulik and Kulik are less frequently misinterpreted by the general media, perhaps because they are rarely cited.

In examining the actual conclusions in these research syntheses, it is essential to examine them according to type of grouping rather than as one amorphous whole. When grouping is separated into within-class, comprehensive, and between-class grouping patterns, the results become more specific and useful.

Within-class ability grouping can be accomplished in several ways and can use a variety of educational techniques. After considering programs in which students in a grade level were assigned to different groups within heterogeneous classrooms, Slavin and Karweit (1984) concluded that such grouping clearly benefits students. Kulik and Kulik (1989) separated the within-class grouping studies into those designed for all students and those designed specifically for academically talented students. The programs designed for all students showed a positive, but small effect on student achievement. This effect was similar for high-, average-, and low-ability groups. The within-class groupings for academically talented students were found to have substantial positive academic effects.

In examining techniques used in within-class differentiation of instruction, both Slavin and Kulik and Kulik have published reviews of mastery testing, and Slavin has reviewed cooperative learning. In the area of mastery testing, Slavin (1987) finds little methodologically adequate research support for it. Kulik and Kulik (1987) find that it generally has positive effects on student learning, although those effects were more pronounced for the less able students. However, it also increased the amount of time needed for instruction. On the average, mastery testing groups require 26 percent more instructional time than conven-

tionally taught groups. Cooperative learning was not included in the Kulik and Kulik research, but Slavin is generally supportive of the practice if groups are rewarded on the basis of the individual learning of all members.

The practice of comprehensive full-day grouping of pupils into different classrooms on the basis of general ability or IQ is not supported by Slavin's best-evidence synthesis. However, it is vital to note that he did not find evidence of academic harm to students in this form of grouping – only lack of academic gain. This lack of academic gain shown among high-ability students in full-day grouping possibly is attributable to the ceiling effect of standardized testing. It also is useful to recall that gifted and special education programs were omitted from this aspect of the best-evidence synthesis, although Slavin has stated his opposition to them in other contexts (with the exception of acceleration programs, which he states may benefit gifted students). In contrast Kulik (1985) found that students grouped in classes according to general academic ability slightly outperformed non-grouped students. The strongest positive effect size was for students in high-ability classes (0.12), with weaker effects for students in middle-level classes (0.04) and no effect for those in low-ability classes. In a separate analysis of gifted and talented programs, Kulik and Kulik (1989) found that students performed significantly better than they did in heterogeneous classes.

The practice of departmentalization was not addressed by Kulik and Kulik, and Slavin indicated that the small amount of existing research recommends against departmentalization in upper elementary and middle grades.

The final topic of direct contrast between the two reviews is that of regrouping for specific subject areas. This includes Joplin and non-graded plans as well as the more traditional regrouping, usually for math and language arts. Slavin (1986) concludes that such an approach can be instructionally effective, particularly when:

- it is done for only one or two subjects – students remain in heterogeneous classes for most of the day,
- it greatly reduces student heterogeneity in a specific skill,
- group assignments are frequently reassessed,
- teachers vary the level and pace of instruction according to student needs.

Slavin's conclusions raise an interesting point of conflict with Kulik and Kulik's research (1989). While they also found a positive effect on achievement for such regrouping approaches, they further observed that this effect existed even when the regrouping was not limited to only one or two subjects, did not substantially reduce heterogeneity, and when group assignments were not frequently assessed. In other words, Kulik and Kulik (1989) did not find evidence to support Slavin's conclusion that grouping programs are most effective when the specific criteria described above are met.

Finally, unlike Slavin, Kulik and Kulik (1982) and Kulik (1985) address the issues of attitude and self-concept. Their findings in these areas show that grouping has minor effects and is generally positive. They found that students who were ability grouped for a specific subject had a better attitude toward that subject but that grouping did not change attitudes about school in general.

With regard to student self-esteem, Kulik and Kulik's research requires serious consideration. A major criticism of ability grouping is that it will lower the self-esteem of students in low-ability groups. Kulik and Kulik determined that, in general, effects of grouping on self-esteem were very small and somewhat dependent upon program type. Programs with high-average-low groups have a small overall effect on self-esteem, but effects tend to be slightly positive for low-ability groups and slightly negative for high and average ones. Limited studies of remedial programs (Kulik 1985) provide evidence that instruction in homogeneous groups has positive effects on the self-esteem of slow learners. Programs designed for gifted students have trivial effects on self-esteem. (Kulik 1985) Why are these results counter to the prevailing expectation? Kulik (personal communication) raises an interesting point on the relative importance of the effects of labeling versus the effects of daily classroom experience. He suggests that the labeling (by placement of a student into a low-medium-high group) may have some transitory impact of self-esteem but that impact may be quickly overshadowed by the effect of the comparison that the student makes between himself or herself and others each day in the classroom. Low-ability students may experience feelings of success and competency when in a classroom with others of like ability, and high-ability students may encounter greater competition for the first time. While the data cannot, in themselves, identify the cause of these findings, the results make it clear that we must reexamine the arguments about self-esteem in the light of them.

Other Issues to Consider

Kulik and Kulik's meta-analyses and Slavin's best-evidence syntheses address a number of important issues about ability grouping for academic instruction. However, other concerns should be considered in making academic grouping decisions. Issues such as the impact of adult attitudes towards grouping, the role of gifted students as role models for other students, and the impact of grouping on student behavior and teacher expectations are all crucial.

Neither of the two studies discusses the importance of teacher and parent attitudes and approaches to grouping, even though educator experience suggests that a low-key, supportive approach by all adults concerned goes a long way toward minimizing any emotional effects of grouping.

The thorniest issue concerning grouping and the gifted is whether the gifted are needed in the regular classroom to act as role models for other students and whether this "use" of gifted students is more important than their own educational needs. That students constantly make ability comparisons between themselves and others (Nicholls and Miller 1984) is sometimes used as the rationale for having gifted students serve as motivational models for others. While there is nothing inherently wrong with serving as a positive role model on occasion, it is morally questionable for adults to view any student's primary function as that of role model to others.

Further, the idea that lower ability students will look up to gifted students as role models is highly questionable. Children typically model their behavior after the behavior of other children of similar ability who are coping well with school. Children of low and average ability do not model themselves on fast learners (Schunk 1987). It appears that "watching someone of similar ability succeed at a task raises the observer's feeling of efficiency and motivates them to try the task" (Feldhusen 1989). Students gain most from watching someone of similar ability "cope" (that is, gradually improve their performance after some effort), rather than watching someone who has attained "mastery" (that is, can demonstrate perfect performance from the outset). These data are compatible with Kulik and Kulik's explanation of their data on self-esteem discussed previously in this article.

A final point not considered in either of the major analyses is that teachers of high-ability classes may spend less time on discipline, spend more time interacting with students (particularly at student initiation), have students who spend more time-on-task, use better teaching techniques, and have higher expectations (Veldman and Sanford 1984). The implication is that the differences in teacher behavior may be a result of teacher bias or expectations, rather than a reaction to the behavior and needs of the students. It is questionable whether the same teacher, with the same expectations, would be able to use the same techniques with a lower ability class. However, the point is well taken that teachers need to examine whether they are "under-expecting" performance from all groups of students and thereby not providing them with the opportunity to rise to their potential.

Educators as Critical Consumers

There is a great deal to be learned from the Slavin and the Kulik and Kulik analyses of ability grouping. The separation of the data into types of grouping (comprehensive, between-class, within-class, separate program, and acceleration) is particularly valuable because it has demonstrated that the effects of grouping vary according to type of plan. However, there also has been a great deal of misrepresentation and misinterpretation of the research. Educators need to be critical consumers. I believe the following statements are supported by research results and may reasonably be applied by educators when making decisions on ability grouping.

1. Gifted and high-ability children show positive academic effects from some forms of homogeneous grouping. The strongest positive academic effects of grouping for gifted students result from either acceleration or classes that are specially designed for the gifted and use specially trained teachers and differentiated curriculum and methods. In fact, all students, whether grouped or not, should be experiencing a differentiated curriculum that provides options geared to their learning styles and ability levels.
2. Average- and low-ability children may benefit academically from certain types of grouping, particularly elementary school regrouping for specific subject areas such as reading and mathematics, as well as from within-class groupings. These benefits may be small. These students show very little benefit from wholesale grouping by general ability.
3. The preponderance of evidence does not support the contention that children are academically harmed by grouping.
4. Students' attitudes toward specific subjects are improved by grouping in those subjects. However, grouping does not have any effect on the attitude toward school.
5. It is unclear whether grouping has any effect on the self-esteem of students in the general school population. However, effects on self-esteem are small but positive for low-ability children and slightly negative for high-ability children. There is limited evidence that remedial programs have a positive effect on the self-esteem of slow learners.

I support the plea of many in the educational field that educational decisions stand upon a firm research base. The original research, however, must itself be examined rather than relying on distillations or selective, possibly biased reports in the media. Further, the questions the researcher is asking must match the questions being asked by the practitioner. Then, our decisions about ability grouping will stand on a sound research base.

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[1] *R. Slavin (personal communication) suggests a distinction between enrichment and acceleration programs for the gifted. This is not always an easy distinction to make. Acceleration is clear when a 7th grader takes Algebra I or French. But is it acceleration or enrichment when a gifted program class introduces more sophisticated literature or science concepts than those used in the regular curriculum? Such material may be characteristic of that usually offered to older children but does not advance them through the instructional continuum. Many studies evaluate programs that are not clearly identifiable as being either enrichment or acceleration. Although the Kuliks did not make the enrichment/acceleration distinction in their meta-analyses on grouping, a separate meta-anulysis on accelerated instruction (Kulik and Kulik 1984a) showed*

very strong positive benefits for acceleration. The performance of accelerated students surpassed by nearly one grade level the performance of the nonaccelerated of equivalent age and intelligence. In their grouping meta-analysis, the Kuliks added an additional 24 studies on gifted children (there is only one overlap with the acceleration meta-analysis), and they obtained the positive results cited above.

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Susan Demirsky Allan is Consultant for Gifted Education/Fine Arts, Dearborn Public Schools, Department of Instructional Services, 18700 Audette, Dearborn, MI 48124.

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An Update on Ability Grouping and Its Importance for Gifted Learners

by Barbara Clark
First appeared in November, 1990 Communicator

With all of the attention ability grouping is getting in our state and nationwide, it is important to be very clear about what research in this area is and what it is not with respect to gifted learners. Claims for heterogeneity are being made that are not supported by research. Conclusions are being drawn and practices recommended from research that has specifically omitted gifted populations (Kulik & Kulik, 1982, 1987; Slavin, 1987).

State Superintendent of Public Instruction, Bill Honig, made it very clear that the position of the California Department of Education was never intended to prohibit ability grouping nor to deny gifted students appropriate educational experiences when he wrote,

> *It has come to my attention that some schools and districts are eliminating advanced classes based on a belief that the California Department of Education is encouraging or requiring heterogeneous grouping of students at all times and for all instructional activities. This is not the case. It is true that we are urging schools to eliminate abusive tracking practices that place a student early in his or her school years into tracks from which the student cannot emerge. We wish to encourage schools to eliminate remedial tracks and a remedial curriculum and to replace this dead-end curriculum with a rich core curriculum in which diverse students can be successful ... We hope that schools and districts will implement flexible and inclusive grouping practices which enable as many students as possible to achieve at the highest levels ...Nothing in the frameworks should be construed to imply any change in policy regarding GATE programs ...Participation in advanced classes should be encouraged for many more students. (Honig, 1990)*

There have been many reviews of the literature on the effects of grouping on learning achievement and self-concept. Among the most recent are Kulik and Kulik (1982, 1984, 1987), Slavin (1987, 1990), and Passow (1988). Of those reviews only Passow investigates grouping as it affects the gifted student. *Both the Kuliks and Slavin use disclaimers at the beginning of their reviews stating that studies of special classes for the gifted and for low achievers will be excluded* as they are "fundamentally different from comprehensive ability grouping plans" (Slavin, 1987, p. 297). The Kuliks (1984) report very small effects for comprehensive grouping and much clearer, positive effects for programs designed especially for talented students. In another review (1982) they comment on the apparent benefit that high-ability students received from the stimulation provided by other high-aptitude students and from the special curricula made possible by grouping. They found the effect of grouping near zero on the achievement of average and below average students; they did not find it to be negative. This review concluded that students seemed to like their school subjects more when they studied with peers of similar ability, and that some students in grouped classes developed more positive attitudes about themselves and about school.

Slavin and Karweit (1984) concluded from their data that schools can best deal with individual differences in ability by dividing students into smaller groups within classes. Later (1987) they noted that when the level and pace of instruction were adapted to the achievement level of the group, ability grouping could be an effective instructional procedure. While some of the critics of ability have cited the Kuliks and Slavin reviews to show that gifted students should not be ability grouped, it is interesting to note that they do not mention these comments.

In the most recent meta-analysis of data on ability grouping in secondary schools, Slavin (1990) again declares, "The studies on which this review is based... exclude studies of special programs for the gifted ..." (p. 475). The conclusions are interesting in light of recent claims of negative effects of grouping on low-achieving and average learners. No effect on achievement was found related to ability grouping in any form or in any subject in which it was used. Even more amazing, no negative effects were seen on low-ability students when assigned to different levels of the same course. In

light of this recent research review, the abolition of flexible ability grouping to meet student needs becomes less and less defensible.

The realization that students may be highly able in different areas and may have needs that differ one from the other forces us to conclude that ***Equality of opportunity does not mean identity of opportunity.***

Those who have used heterogeneous grouping as a focus for several years have the following criticisms of this practice (Evans, 1985):

- more difficulty for less-achieving students, as there was more pressure from the pacing and higher thought processes of brighter students.
- more difficult behavior exhibited by less-achieving students.
- increased management problems for teachers.
- return to failure situations for some children that grouping had remediated.

Willis, in a recent *ASCD Update* (1990) reports that some experts on gifted education charge that gifted programs are being eroded and gifted children are being exploited by the increasing popularity of heterogeneously grouped cooperative learning strategies. Such actions are seen as devastatingly negative for gifted children by John Feldhusen, Director of the Gifted Education Resource Center at Purdue University. Gifted children in heterogeneous cooperative learning groups are denied opportunities that are challenging because they must work at a pace determined by the group, spend their time learning things they already know or teaching them to others – forcing them to become assistant teachers. Feldhusen does not believe this to be ethical. He suggests that instead of eliminating ability grouping, educators make major efforts to improve instruction in low-track classes and to sustain appropriate and high-quality teaching in middle- and high-track classes. "Heterogeneous grouping will create chaos and severely lower achievement for all students at all levels of ability," states Feldhusen (Willis, 1990).

"When gifted students are held to the level and pace of average students, they are hurt academically, socially, and motivationally," adds Julian Stanley, Director of the Study of Mathematically Precocious Youth at Johns Hopkins University (Willis, 1990). Gallagher (Willis, 1990) finds that gifted students who are ungrouped in public schools find their coursework so unchallenging that many have poor work habits and do not know how to address difficult problems. "It is envy and twisted concept of democracy, not research, that ungroups gifted students," he states.

Homogeneous *and* heterogeneous grouping practices have important contributions to make to teaching and learning. In the 1971 hearings held by the U.S. Department of Health, Education, and Welfare, gifted students expressed preference for programs where they are separated for part of the day, but are not totally segregated from other students. They asked for flexibility in their program and curriculum (Marland, 1972).

Homogeneous grouping can be used to:

- provide peer stimulation. A peer is defined as one who has like ability in any area of human endeavor, not just a similar age.
- support skill development.
- meet specific needs.

Heterogeneous grouping can be used to:

- develop social skills.
- introduce new experiences or information needed by the whole class.
- build a community of learners.
- develop social skills.

Our goals in education must include the provision of experiences for individuals to continue their own educational progress *and* to learn from others, to meet their personal needs *and* to understand the needs of others, to learn to be independent and self-reliant *and* to have the skills of working with others. To accomplish such goals we must be able to provide both homogeneous and heterogeneous grouping experiences. Ability grouping is a valuable educational tool. When used along with other appropriate and flexible forms of grouping, the needs of gifted students can more nearly be met. There are, however, some educational decision makers who have not seen or choose not to attend to the research nor to Mr. Honig's statement. We must help them to become better informed. The educational welfare of our gifted learners depends on it.

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Dr. Barbara Clark is a Professor of Education at California State University at Los Angeles, 5151 State University Drive, Los Angeles. CA 90032.

The Effects of Grouping on Gifted Students

Barbara Clark

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The practice of grouping in any form does not solve poor teaching or inappropriate curriculum, but without grouping we can limit good teaching and the delivery of appropriate curriculum.

In California at the present time those of us who are attempting to provide quality education for our students, and especially educational experiences appropriate for gifted students, find ourselves increasingly limited by a statewide trend. That trend encourages the use of only heterogeneous grouping in all classrooms. This situation has been brought about by sincere concerns that some children are not receiving quality educational experiences and are being penalized by the practices of the educational system. There is no denying that the system as it is now organized fails to serve all students equally well. Students who enter the schooling process without the skills that will allow them to operate as successful learners, those who have little support from home, those whose families are part of the culture of poverty, those who have limited language ability in either their native language or in the dominant language of the classroom, and those who are significantly ahead of the designated grade level curriculum will find learning in the current schooling system difficult. Many will fall further and further behind and others who began ahead will find no way to realize the extent of their abilities. A simplistic notion has been advanced to account for the failure of these children. The practice of grouping in classrooms is held to be responsible. From books, such as the treatise by Oakes (1985), from task forces, such as the one that produced the Literature Project, to "new" methods suggested for the classroom, such as Cooperative Learning (Johnson & Johnson, 1987), come the cry to do away with ability or needs grouping.

It is interesting that in all of the furor there is no mention of age grouping, which is the most inappropriate of any form of grouping. Long ago it was discovered that age was not related to learning; however, schools continue to organize classrooms and learning experiences using age as the criterion for grouping. Other forms of grouping have been used by educators to try to alleviate the problems caused by age grouping. Those who would do away with all these modifications have not suggested any reorganization that would discontinue age-grouped classes.

There can be no doubt that there have been abuses in the practice of grouping. Grouping students from test scores recorded in their files without any observation of the students or their specific needs is an abuse. Tracking learners into all advanced classes without consideration for just where their talents need advancement is an abuse. Keeping students rigidly in three groups for the entire year and sometimes year after year is an abuse. Using grouping without assessment of ability, interest, or pace of learning is an abuse. No one denies grouping practices, as is true of all practices in education, can be abused. The answer is not to discontinue the benefits of grouping but to reveal the abuse and suggest better grouping practices, more alternatives to help students succeed.

As we consider the problem with which we are faced one solution becomes clear. We, as the state's largest organized group of advocates for quality education, especially as it affects our most able learners, must share information on alternatives with those who see the narrow solution now being proposed as the "best" solution.

Goal: To provide data to allow members of the California Association for the Gifted to be knowledgeable advocates for quality education, especially as it relates to how grouping affects gifted students.

The Effects of Grouping on Gifted Students

There have been many reviews of the literature on the effects of grouping on learning and self-concept. Among the most recent are Kulik and Kulik (1982), Slavin (1987), and Passow (1988). Of those reviews only Passow investigates grouping as it affects the gifted student. Both the Kuliks and Slavin use disclaimers at the beginning of their reviews stating that studies of special classes for the gifted and for low achievers will be excluded, as they are, says Slavin, "...fundamentally different from comprehensive ability grouping plans" (p. 297). While some of the critics of ability grouping have cited the Kuliks and Slavin reviews to show that gifted students should not be grouped, it is interesting to note this exclusion in their work.

Simpson and Martinson (1961) showed that regardless of the form that the grouping took, whether in a pull-out program or in a special class, achievement gains were positively correlated with the time the gifted student spent in special grouping. Current data gathering has focused on "mainstreaming," or heterogeneously grouping students with those of differing ability. Those who have used such practices for a period of several years have the following criticisms of this practice (Evans, 1985). Using heterogeneous grouping resulted in:

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- more difficulty for less-achieving students, as there was more pressure from the pacing and higher thought processes of brighter students
- less-achieving students exhibiting more difficult behavior
- management problems of teachers increasing
- putting children back into failure situations that special grouping had remediated.

Cushenberry and Howell (1974) criticize the use of gifted students as teachers' aides, demonstrators, tutors, or record keepers, roles that seem to result from relying solely on heterogeneous grouping. While other students may benefit from the extra help, the gifted students are deprived from developing their abilities and interests. The researchers, therefore, consider such an arrangement a violation of gifted students' rights to appropriate education and to healthy social interactions with classmates. It seems from these reports that the special needs of neither high nor low students were met by doing away with ability grouping.

Quite different results have been reported with students, the gifted included, in classes appropriately grouped (McDermott, 1977; Mooscited in Contenta, 1988; Walburg & Anderson, 1972):

- more learning took place
- less cliquishness and friction existed among students
- students were less apathetic about classroom experiences
- more trusting relationships were established, which allowed students to spend their time and energy in learning rather than in disruptive behaviors
- interest in subject areas increased.

Advocates of heterogeneous grouping as the "best" practice seem to indicate that homogeneous grouping creates inequality in ability. Such an assumption ignores the fact that inequality in ability is well in place prior to school attendance. It is, at least in part, the result of inequality in the social system, especially the economic system, for there is no greater inhibitor to human development, physical and intellectual, than the culture of poverty. We have seen that the gifted students, with their heightened sensitivity to their environment, are all too often vulnerable to underachievement and maladjustment if they are not allowed appropriate educational experiences. Without alternative grouping practices these experiences cannot be provided. Grouping must be based on the PURPOSE of the teacher and the NEED of the student.

Homogeneous AND Heterogeneous Grouping

Both homogeneous and heterogeneous grouping practices have important contributions to make to teaching and learning. In the 1971 hearings held by the U.S. Department of Health, Education, and Welfare, gifted students expressed preference for programs where they are separated for part of the day, but not totally segregated from other students. They asked for flexibility in their program and in their curriculum (Marland, 1972).

Homogeneous grouping should be used to:

- provide peer stimulation (A peer is defined as one who has like ability in any area of human endeavor, not just a similar age.)
- support skill development.
- meet specific needs.

Heterogeneous grouping should be used to:

- develop social skills.
- introduce new experiences or information needed by the whole class.
- build a community of learners.

Cooperative AND Individualized Learning

As more is understood about human learning it becomes apparent that no two individuals learn alike; their experiences are not alike, their pace of learning is not alike, their interests are not alike. The interaction between heredity and environment guarantees the uniqueness of each individual. Providing experiences for individuals to continue their own educational progress AND to learn from others, to meet their personal needs AND to understand the needs of others, to learn to be independent and self-reliant AND to have the skills of working with others must be among our goals. To accomplish such goals we must be able to provide both cooperative AND individualized learning experiences for our students.

Cooperative learning allows:

- all students to develop a base line understanding of subject matter
- students to become peer tutors
- a forum for developing social skills, including interpersonal, communication, and leadership skills.

Individualized learning allows:

- all students to meet their own needs and develop their personal interests
- progress at each students' own pace
- presentation of material appropriately challenging to each student
- compacting of the curriculum, where needed.

Conclusions for Gifted Students

Significant academic gains result when programs are adjusted to student abilities. Grouping alone is insufficient to show differences in achievement of grouped over nongrouped gifted students. While ability grouping may provide a partial answer to the question of appropriate education for the gifted, other modifications must be made for the program to succeed. When ability grouping is used, the research recommends the following:

1. Recognize that there will still be individual differences. There is a tremendous range found within the gifted group; they are not homogeneous. Assess and plan for individualized instruction.
2. Avoid complete segregation.
3. Select secure, specially trained teachers.
4. Encourage growth in all functions, not just the intellectual.
5. Communicate with all teachers and parents.
6. Be informed on research, evaluation, and curriculum for this population. (Clark, 1988)

The realization that students may be highly able in different areas and may have needs that differ one from the other forces us to conclude that:

Equity of opportunity does not mean the same opportunity.

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Instructional Grouping, GATE and Honors Classes... Part 1

Superintendent Bill Honig

The following directive was sent to Superintendents and GATE Administrators throughout the state on April 14, 1989. It was written in response to a request from CAG. Members had reported the dismantling of honors and GATE programs in various districts around the state in the mistaken conviction the districts were following State Department of Education directives. Although CAG had been assured that this was not the intent, we felt that a letter from Superintendent Honig might assist the field in protecting appropriate programs for gifted and talented students.

This memorandum is intended to clarify the Department of Education position regarding instructional grouping practices and tracking in relation to the Gifted and Talented Education Program, honors, and Advanced Placement courses.

California's educational reform is well underway and already we have attained some impressive results: students are in school longer, they are enrolling in more demanding courses, the quality of textbooks has improved, and test scores are up. The second phase of our work is to ensure that these reforms are implemented in each and every classroom and that all students receive the benefits of our improvement efforts. The challenges involved in this next phase are enormous and complex. One part of the task will be to modify our course enrollment and instructional grouping practices so that all students have access to the knowledge that will help them succeed in their adult lives.

Various recent Department publications and presentations such as *Caught in the Middle, Equity and Access in a Language Arts Program for All Students,* and documents related to the School Improvement Program have urged schools to consider more flexibility in instructional grouping practices and use of techniques such as cooperative learning in order to make a rich curriculum accessible to a diverse student population. The repetitive skill and drill curriculum often associated with remedial tracks has neither remediated students nor excited them about learning. Regrettably, some people have misunderstood this advice as holding back advanced learners in order to assist less proficient learners. This is not our intent. In fact, our goal is to dramatically increase the number of students who can successfully complete advanced course work. Rather than setting an upper limit on the attainments of advanced learners, we seek to raise the overall level of attainment, to increase the number of advanced and honors classes, and the number of students who can be successful in them.

There has also been some misunderstanding with regard to the Model Curriculum Standards and curriculum frameworks. One of the most important features of the new curriculum frameworks is the complexity of content which can offer challenging instructional experiences for varied learners. I urge teachers to explore ways of involving all students in these complex learning tasks. To be sure, there will continue to be students with a variety of special needs requiring targeted assistance. Just as low-achieving students need supportive intervention, so our most advanced students should receive careful monitoring to ensure that they are fully challenged for continuous learning. A core curriculum is not the same as a standard curriculum. The curriculum frameworks were developed to provide open-ended structure within which to provide substantive instructional content for all students. However, the frameworks were never intended to prescribe a lock-step approach to teaching. Nothing in the frameworks should be construed to imply any change in policy regarding GATE Programs.

> A core curriculum is not the same as a standard curriculum.

In 1983 I established goals to increase the number of higher level and Advanced Placement courses in California schools and the number of students enrolled in those courses. I

review carefully the annual report from the College Board to follow California's growth in Advanced Placement courses and tests. Further, in 1985, I set goals to increase California's participation in the academically rigorous International Baccalaureate (IB) program. California is now the primary provider of IB programs in North America. I do not intend that student success with Advanced Placement and International Baccalaureate coursework and examinations be threatened by diluted and inadequate preparation of students prior to the eleventh grade. We have urged, rather, an increase in the offerings of these classes for a larger proportion of our student population. I urge you to implement whatever strategies are most effective in the delivery of coursework that prepares students for success with college preparatory and advanced classes. Even as I say this, I urge you, also, to refrain from the abusive tracking practices that place a child early in his or her school years into tracks from which the child cannot emerge and in which he or she is not adequately challenged.

Throughout the state, schools and districts are looking at alternatives to tracking. Some schools are focusing on eliminating the lowest (i.e., remedial) tracks, recognizing that less successful learners can benefit more from a meaningful curriculum than from repetitious drills on low-level skills. Other schools are attempting to establish the college preparatory curriculum as the core sequence for most of the students. Still others are involving more students in gifted and talented or advanced classes even though these students are not formally identified as gifted.

I believe that many more students can be successful if we disavow remedial approaches with watered-down curriculum and provide, instead, a rich core curriculum with adequate motivational and tutorial support. I am urging all of the educational community to take another look at course enrollment practices and consider approaches that would enable many more students to succeed in the most challenging course sequences in our secondary schools.

In the long term, we can only reverse patterns of low achievement and disengagement from school if we find ways to promote school success for all students from the earliest grade levels. We know that students who fall behind their age-mates in school achievement are less likely to exert effort to succeed or to be seen as capable of success by their teachers, their peers, or themselves.

During this next phase of reform, we will be seeking to ensure that the standard of excellence represented by the new curriculum and by instructional strategies for advanced learners becomes accessible to larger numbers of students. Many schools are taking bold steps to involve increasing numbers of students in substantive academic course work. We view these efforts as innovative and promising strategies for fostering excellence for our diverse population of students in California. It is a challenge worth joining.

Instructional Grouping, GATE and Honors Classes...Part 2

A memorandum from Bill Honig, Superintendent of Public Instruction, to County and District Superintendents of Schools and GATE Coordinators, dated May 11, 1990.

This memorandum follows up on the April 14, 1989, memorandum discussing instructional grouping practices and tracking in relation to the Gifted and Talented Education Program, honors, and Advanced Placement classes.

It has come to my attention that some schools and districts are eliminating advanced classes based on a belief that the California Department of Education is encouraging or requiring heterogeneous grouping of students at all times and for all instructional activities. This is not the case. It is true that we are urging schools to eliminate abusive tracking practices that place a student early in his or her school years into tracks from which the student cannot emerge. We wish to encourage schools to eliminate remedial tracks and a remedial curriculum and to replace this dead-end curriculum with a rich core curriculum in which diverse students can be successful. Within this core curriculum, we recognize that it is essentially a matter of local policy to design instructional grouping practices. We hope that schools and districts will implement flexible and inclusive grouping practices which enable as many students as possible to achieve at the highest levels.

Various recent Department publications and presentations such as *Caught in the Middle, Equity and Access in a Language Arts Program for All Students,* and documents related to the School Improvement Program have urged schools to consider more flexibility in instructional grouping practices and use of techniques such as cooperative learning in order to make a rich curriculum accessible to a diverse student population. The repetitive skill and drill curriculum often associated with remedial tracks has neither remediated students nor excited them about learning. Regrettably, some people have misunderstood this advice as holding back advanced learners in order to assist less proficient learners. This is not our intent. In fact, our goal is to dramatically increase the number of students who can successfully complete advanced course work. Rather than setting an upper limit on the attainments of advanced learners, we seek to raise the overall level of attainment, to increase the number of advanced and honors classes, and the number of students who can be successful in them.

Rather than setting an upper limit on the attainments of advanced learners, we seek to raise the overall level of attainment, to increase the number of advanced and honors classes, and the number of students who can be successful in them.

There has also been some misunderstanding with regard to the Model Curriculum Standards and curriculum frameworks. One of the most important features of the new curriculum frameworks is the complexity of content which can offer challenging instructional experiences for varied learners. I urge teachers to explore ways of involving all students in these complex learning tasks. To be sure, there will continue to be students with a variety of special needs requiring targeted assistance. Just as low-achieving students need supportive intervention, so our most advanced students should receive careful monitoring to ensure that they are fully challenged for continuous learning. A core curriculum is not the same as a standard curriculum. The curriculum frameworks were developed to provide an open-ended structure within which to provide substantive instructional content for all students. However, the frameworks were never intended to prescribe a lock-step approach to teaching. Nothing in the frameworks should be construed to imply any change in policy regarding GATE programs, except insofar as we are urging schools and districts to include more students in advanced learning opportunities at all grade levels. Participation in advanced classes should be encouraged for many more students. In no case should a student be denied admission to a college-preparatory or advanced class because of a single standardized test score.

Throughout the state, schools and districts are looking at alternatives to tracking. These alternatives require careful planning. Simply eliminating tracking without such planning can do more harm than good. Some schools are focusing on eliminating the lowest (i.e., remedial) tracks, recognizing that less successful learners can benefit more from a meaningful curriculum than from repetitious drills on low-level skills. Other schools are attempting to establish the college preparatory curriculum as the core sequence for most of their students. Still others are involving many more students in gifted or advanced classes whether or not these students are formally identified as gifted.

I believe that many more students can be successful if we disavow remedial approaches with watered-down curriculum and provide, instead, a rich core curriculum with adequate motivational and tutorial support. I am urging all of the educational community to take another look at grouping and course enrollment practices and consider approaches that would enable many more students to succeed in the most challenging courses at all levels in our schools.

If a man love the labor of his trade, apart from any question of success or fame, the gods have called him.
Robert Louis Stevenson

TECHNET

Using Interactive Media for GATE Outcomes

by Ella Broderick

The best classroom activities help students and teachers maximize learning, integrate content around themes, and allow real-life projects on vital issues. These activities also provide for social and emotional growth of children with gifted characteristics. The technology described here, an "integrated interactive hypermedia package," helps teachers meet the special needs of gifted children, with as much depth and breadth and complexity as the users can create.

Core Curriculum Content, Motivation, Involvement

One of the most exciting new products available for social studies teachers is *GTV: A GeographicPerspective on American History* produced by Lucas Film and National Geographic. The video disks contain 34 videos and some fascinating primary source material such as diaries, journals, demographic data, maps and drawings. You can access preselected "shows" that have been developed by GTV to illustrate sixty historical themes beginning with pre-Columbian times to the present. These shows include stunning, full-motion video clips along with voice-overs of journal entries by people of those times. The personal accounts allow students to hear history from a variety of first-person perspectives in a way that a text does not.

Teachers and students can create their own shows by sequencing film and still footage to coordinate with the curriculum. The California History Social Science Framework advocates "history as a story well told" (1988, p. 4). This program provides some of those stories and brings them to life. The package comes with two video disks and a collection of lesson ideas and extensions. The activities are well written and the directions are easy to understand, even for a novice.

Language Arts, Critical Thinking

In the video programs alone, students are led to question, discuss, and draw conclusions about the growth of our nation. Using only the laserplayer with remote control device, you can pause and discuss; step or scan movies and slides; and hear dialogue, music, or both. The interactive computer program increases the levels of challenge and reward.

Individualization, Appropriate Differentiation, Leadership Skills

Using hypermedia in the classroom, the structure of the room, the assignment, and the grouping of individuals is important. The self-contained classroom gives the instructor the option of working with a small group to train them as team leaders while the rest of the class works on an assignment independently. These team leaders are then given assignments directly from the GTV manual that extend units of study currently being covered in the text. Only one team works on an assignment at a time. The computers allow the students to become facilitators of their own learning as they retrieve and analyze the data.

Self-esteem, Teamwork, Authentic Assessment

"I enjoyed working on GTV because there was lots of information to use and the videos and pictures made our report easy. There was so much information it was hard to figure out what to use, but I learned a lot!" Camille Keith, a 5th grade team leader, pointed out one of the strengths of the program. The students have a unique opportunity to develop information retrieval and information processing skills in the social studies. Producing a mixed media presentation provides new ways for students to demonstrate their understanding and actively participate in a team effort.

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INTERACTIVE HYPERMEDIA

Lesson Plan:	Submitted by Ella Broderick GATE Teacher, grade 5 Lawrence Elementary, Garden Grove, CA 714/663-6255
Preparation Time:	1 to 2 hours to learn how to use the software to access interactive features (minutes, if you can work with someone who has used it;) It will be helpful to preview video using remote control (up to 2 hours).
Skills needed:	Use of mouse on Mac, drag and click to open, use of pull-down menus
Lesson time:	5 to 7 working days per group, 45-60 minute sessions
Equipment:	Available for Apple llgs, Macintosh, and IBM; Laser Disc Player and TV monitor
Material:	*GTV: A Geographic Perspective on American History* Package contains 2 laser discs, 7 computer disks, manual
Curriculum:	Social Studies, (US History, Pre-Columbian to present), Language Arts
Grade levels:	5 and 8
Objectives:	Develop critical thinking, decision making, and organizational skills Empower students to interpret history from a personal point of view Develop skills in collaborative group problem solving

The Lessons:

1. Select your best leaders for pre-training. I started with no experience, with a group of five GATE students in grades 4-5, followed the manual directions for "Showtime" and produced a short program. After this learning experience, these students practiced using suggestions straight from the book and were able to produce their own show. They became the cooperative learning technical experts who showed the other students how to use the program.

2. Form research groups and topics. For each chapter in the history book a team was assigned to explore GTV and produce a Showtime production that examined the subject from a different point of view. For example, the theme "Risk Takers" was used in part by two groups preparing programs on both the explorers and the colonists. The suggestions in the manual were followed as this was a first experience for all of us.

3. Go to work. The entire class uses the U.S. History text. Each group also locates additional information on its own topic. As the class studies each chapter in the history text the group assigned to that topic works to prepareits GTV report for class presentation. For the extension and depth that is expected in a GATE classroom, the students must come to the program with background information. Showing the video of the time period or theme they have been assigned will inspire them to

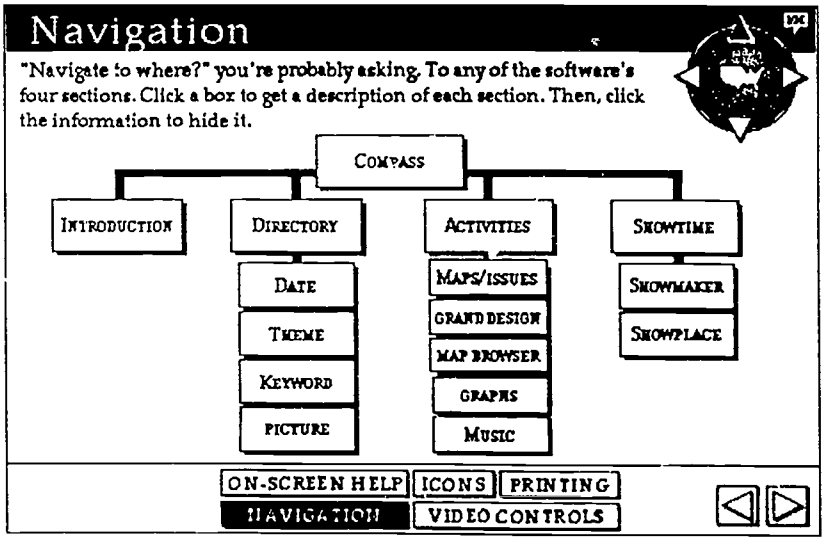
gather more information from several sources. This knowledge will make their selections in the search mode more cohesive. The discussion with their peers and decision making as to what is pertinent are major parts of the learning.

4. Select slides, shows, and sounds from "Archives." Using the Showtime section of the software, which students quickly grasp, they access pictures, maps, videos, diaries, and music, and put them into their working list. We found that it was wise not to choose all the possible titles in the search mode, as that often froze the program. (When and if this happens, hold down option + open apple + period or space bar; this will usually get things going again.)

5. Narrow the choices. After previewing their selections, students move items from the working list to the play list. This is where they can edit videos, write text, and determine the sequence of their selections. Keep the number of selections to around 20 per show. For the time allowed each group this was the optimum number.

6. Save the show onto computer disk.

7. Groups present to the class, showing their unique point of view. Each group found different ways to present their show. Just playing the show while reading the text off the computer screen was the simplest; others simply ran off their text on the printer and read it as the show ran. One group chose to set up a TV camera and video tape their newscast of events leading up to the American Revolution while the computer ran the laserdisk for the accompanying visuals that went with the news stories.



Once my children learned to use this program they were eager to try their own ideas for subjects and make new shows. They also looked to GTV for support when planning other research projects. The skills they had developed in research, problem solving, and presentation were worth all the time and frustration encountered. Real projects, real fun, real accomplishment!

Broderick

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Problem Solving, Computer Skills, Research

When asked about her experience with the program, Nikole Florin, a 4th grader in Garden Grove, responded, "I loved working on the GTV! My subject, The Risk Takers, wasn't easy. The GTV made it a snap. The only thing I found frustrating in doing a presentation on the explorers was learning how to use the program. After getting the hang of it, it was fun and exciting!" Intuitively, Nikole identified the benefits and the drawbacks of the program.

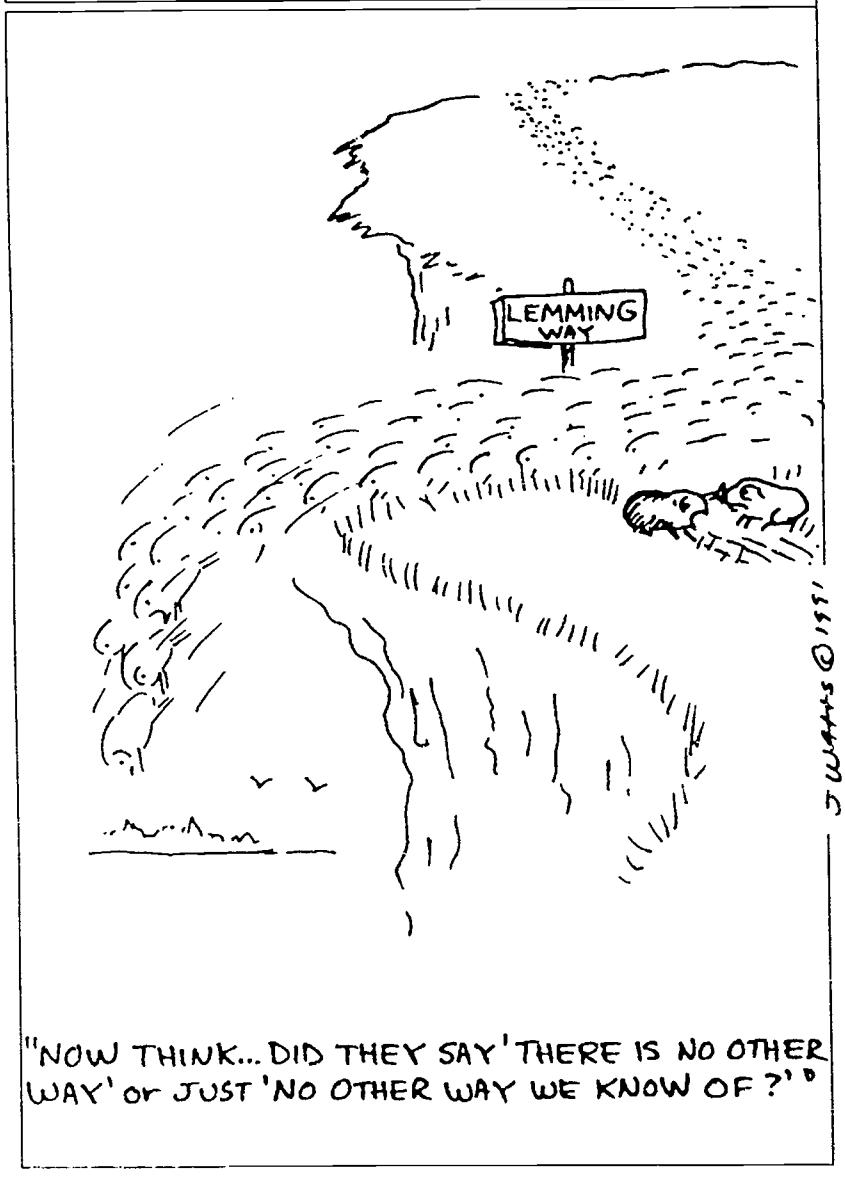
Persistence + Persistence = Rewards

The mechanics of producing the mixed media presentation seemed to be one of the few stumbling blocks of using the program. Using the Macintosh to set up the program and access the information is overwhelming at first. All of the students and teachers found it "hard" and "frustrating". ***The key is time.*** The more time spent with the program the easier it becomes. But, when students and teachers have the opportunity to work with the technology and become comfortable with it, they show a renewed excitement for the resources and possibilities that hypermedia can bring to the classroom.

Ella Broderick can be reached at 1665 N. Shaffer; Orange CA 92667; 714/663-6255.

ON THE LIGHT SIDE

by Jean Watts



CALENDAR OF EVENTS

Orange County CUE
(Computer Using Educators)
Membership Meeting:
Thursday, January 22, 1992
Western High School, Anaheim CA

At-Risk Students and Technology Options
Speaker: Susan Brooks, Ontario CA

Let us know about technology conferences in your area. Information should be received as far in advance of the conference as possible.

National Association for Gifted Children Policy Statement on Grouping

The practice of grouping, enabling students with advanced abilities and/or performance to be grouped together to receive appropriately challenging instruction, has recently come under attack. The National Association for Gifted Children wishes to reaffirm the importance of grouping for instruction of gifted students. Grouping allows for more appropriate, rapid, and advanced instruction, which matches the rapidly developing skills and capabilities of gifted students.

Special attention should be given to gifted students from culturally different backgrounds, who are often overlooked and may need, and should receive, special assistance to identify their talents and to help them participate effectively in special grouping programs.

Strong research evidence supports the effectiveness of ability grouping for gifted students in accelerated classes, enrichment programs, Advanced Placement programs, etc. Ability and performance grouping has been used extensively in programs for musically and artistically gifted students, with little argument. Grouping is a necessary component of every graduate and professional preparation program, such as law, medicine, and the sciences. It is an accepted practice that is used extensively in the education programs in almost every country in the western world.

NAGC does not endorse a tracking system that sorts all children into fixed layers in the school system with little attention to particular content, student motivation, past accomplishment, or present potential.

To abandon the proven instructional strategy of grouping students for instruction at a time of educational crisis in the U.S. will further damage our already poor competitive position with the rest of the world, and will renege on our promise to provide an appropriate education for all children.

Off the Track

by Anne Wallach
First appeared in the April, 1989 Communicator

This article is a response to the assertion that ability grouping has failed. A book called *Keeping Track: How Schools Structure Inequality* by Jeannie Oakes was published in 1985 by Yale University Press. The book is a slightly revised version of Oakes' UCLA doctoral dissertation. My attention was called to this study by several professionals in gifted education who were very concerned about the book's negative impact on the current California practice of grouping GATE students in gifted classes.

Keeping Track is a carefully detailed study of the effects of tracking on **secondary** school practices. The author's intention is to demonstrate the damaging effects of sorting or grouping students into academic classes that deny equal educational opportunity, particularly to students placed in the low track. The data analyzed in the study were gathered from a national sample of 25 junior and senior high schools, with 299 classes of English and mathematics the specific target (75 high track, 85 average track, 64 low track, 75 heterogeneous classes). The data were originally accumulated in John I. Goodlad's project which was reported in his 1984 book, *A Place Called School.*

How is *Keeping Track* structured? Two chapters on tracking or ability grouping (research approaches and historical development), six chapters of her findings on school conditions (course content, quality of instruction, classroom climate, student attitudes, vocational education) one chapter on constitutional or legal issues, and a final chapter which includes a brief section on desirable heterogeneous secondary school techniques.

As CAG members you are concerned about issues in gifted education. You should understand that the book only occasionally refers directly to the gifted or brightest students; however, it deals with them implicitly as a part of the top track.

If *Keeping Track* does not deal directly with gifted education, does it deserve our attention? Yes, first because it is widely distributed, appearing in both hard and soft cover for wide circulation with a front cover announcement, "Selected as a MUST READ by the *American School Board Journal.*" Second, because Dr. Oakes makes some almost absolute statements about tracking that deserve examination. Third, because most readers will accept her contentions about ability grouping without examining supporting references. If one accepts unquestioningly her thesis of the educational inequities caused by tracking, there could indeed be a threat to the grouping of gifted students. And, at one point early in the book, she directly challenges and denies the value of gifted classes.

In Chapter 1, "Tracking," Dr. Oakes states the assumptions that underlie the sorting of students as a prelude to demolishing such sorting. The first "universally held" assumption "that students learn more or better in homogeneous groups" she attacks by writing, "It is simply not true. Or, at least, we have virtually mountains of research evidence indicating that homogeneous grouping doesn't consistently help **anyone** learn better" (p. 7). She reaffirms her position more strongly with "**no group of students has been found to benefit consistently from being in a homogeneous group.** A few of the studies show that those students identified as the brightest learn more when they are taught in a group of their peers, and provided an enriched curriculum. However, most do not" (p. 7).

These are strong statements. Do her research references support these generalizations? Does her own data support these contentions? Let me take you briefly through her five citations for a view of their findings.

Citation 1 (Dr. Oakes presents her references in chronological sequence) by Miller and Otto in 1930 examines 20 studies of ability grouping reported in the 1920's when grouping was new.[1] These studies are very loosely designed: some without the number of students involved, others without use of pre-tests or of post-tests. Although 16 of the 20 studies show some benefits for homogeneous grouping, the data and results are too inconclusive except to consider the studies as interesting pioneer efforts. Their final conclusion is tentative, suggesting "homogeneous classification may be effective if accompanied by proper

adaptation in methods and materials" (p. 101). This rather neutral conclusion provides no research basis for Dr. Oakes' strong positions that no group benefits from homogeneous grouping or that most studies show gifted students do not benefit from grouping.

Citation 2, John Goodlad's article on "Classroom Organization," is a contribution to the 1960 *Encyclopedia of Educational Research.*[2] It is almost an aside to the topic. When he refers briefly to ability grouping in this general article, he writes of the "limited value of research" and "that studies favor ability grouping in academic courses ... only when content is enriched and for the bright only when they move at a faster pace." Again, no support for the Oakes' position we are examining.

Citation 3 by Dominick Esposito, written in 1973, is a more interesting and revealing reference.[3] He states that he examines homogeneous and heterogeneous grouping "within the framework of equal educational opportunity," which is also Dr. Oakes' philosophical position. Esposito acknowledges the longevity of the ability grouping debate. He begins his discussion of research by turning to the 1966 book, *The Effects of Ability Grouping* by Goldberg, Passow, and Justman, a reference not cited by Dr. Oakes. He restates their list of variables to show the difficulty of comparing or summarizing research on academic achievement alone: range of objectives, basis for determining homogeneity, duration of study, adequacy of selection bases and means of matching experimental and control groups, numbers of students involved, numbers of groups, size of classes, specification of curricula and teaching methods, instruments and techniques used in assessing changes in students, and the development and training of teachers for various groups. If we extend this impressive list of relatively objective variables by realizing the other relatively subjective, unquantifiable factors influencing student learning outcomes, it becomes immediately clearer why research summaries are likely to be less than consistently positive or negative.

Having presented the cautions, Esposito proceeds to his own generalizations: there is (1) conflicting evidence on scholastic achievement in the superior groups, and (2) almost uniformly unfavorable evidence on scholastic achievement in average and relatively low ability groups. He restates and seems to shift ground when he comments that for studies which show significant statistical effects "the slight preponderance of evidence favoring the learning of high ability students is coupled with evidence of unfavorable effects on the learning of average or below average ability groups, particularly the latter." The use of the phrase "is coupled" in this statement is, I think, particularly significant, almost as if an organic relationship existed between one group's benefit and another's loss. It is a partisan position, an unfair and unnecessary coupling which has often been an implied charge against gifted education.

Esposito proceeds to make a further negative pronouncement: The more recent evidence "seems insufficient to support the widely held opinion or contention, that the the grouping of children homogeneously according to ability contributes more to the development of desirable attitudes and positive self-concepts, especially among children classified as slow or of low ability." After reading this carefully worded undermining of homogeneous grouping I needed an antidote, a reputable study of heterogeneous classes which clearly showed positive results for all students. But his report fails to provide a comparison of student outcomes in homogeneous groupings with student outcomes in heterogeneous groupings; it is a subjective scrutiny of outcomes in different levels of homogeneous grouping as is Dr. Oakes' book. His article is too tentative to support Dr. Oakes' positions.

Although Dr. Oakes did not cite the Goldberg, Passow, and Justman study (1966), I have examined it and found it the most complete and careful single study of ability grouped classes reported.[4] Their evidence was based on 2219 students in 86 fifth and sixth grade classes, grouped into five ability levels with the top level of 383 students beginning at 130 I.Q. In this study all groups in the 16 months of the study gained at least 20 school months in achievement. While the top ability group made high gains, the authors noted that the low ceiling of the test did not permit the students in the top group to demonstrate their full growth. Two of their summations are relevant: (1) narrowing the range of ability using group intelligence tests does not result in greater academic achievement unless there are specifically designed changes in content, learning pace, teaching methods, and materials; and (2) there was no support for the contention that grouped classes "are associated with negative effects on

self concept, aspirations, interests, attitudes toward school, and other non-intellectual factors" (p. 168).

They concluded, "Ability grouping is inherently neither good nor bad. It is neutral. Its value depends upon the way in which it is used." Jeannie Oakes' contention that tracking must be ended to give students from lower socio-economic families and minority groups an equal education was foreseen by these writers. They are prophetic in writing, "Ability grouping may become dangerous when it leads teachers to underestimate the learning capacities of pupils in the lower ability levels" (p. 168). The Goldberg study presents definite evidence in opposition to Dr. Oakes' positions on both achievement and student attitudes, but it was not cited, perhaps because it is a single study. Its findings deserve mention.

Citation 4 by R.D. Froman is a 1981 paper entitled "Ability Grouping: Why Do We Persist and Should We?"[5] In Froman's summation of studies he speaks of trends, for he considers the studies to be inconclusive. In tracing the changing philosophic attitudes toward the use of ability groups, he writes that early studies were designed to reveal outcomes in achievement, later studies examined self-concept, and in the 1960's the focus shifted to racial and economic segregation. He writes, "As a group, the qualitative discussions of ability grouping, its logic and documented effects are surprisingly severe" and again that articles advocating it are rare in the 1970's. I interpret his use of the word "qualitative" to indicate subjectivity.

He balances his final judgement with the statement, "Although there is an absence of consistent, replicated, empirical study which might condemn ability grouping, it is difficult to gather much support for its continued practice." Yet he concludes that high ability groups are the only ones benefited by grouping. Philosophically he agrees with Dr. Oakes' position on grouping, but concedes the benefits of grouping to high ability groups.

Citation 5 by C.C. Kulick and J.A. Kulick, "Effects of Ability Grouping of Secondary School Students: A Meta-Analysis of Evaluation Findings," is the most interesting for a number of reasons.[6] It is the most recent (1982), it is the most comprehensive, it is focused on secondary students only, and it is reduced in importance by Dr. Oakes by being placed within parentheses and introduced with the introductory comment, "Note the somewhat contradictory conclusion drawn by..."

In their search through the literature, Kulick and Kulick found over 700 studies listed on grouping of students, but only 180 with enough data to be potentially useful for analysis. When they established criteria, only 52 studies contained sufficient data to allow analysis. The paucity of adequately designed, objective studies among so many is interesting. Their criteria limited their analysis to: (1) secondary classes; (2) measured outcomes in both grouped and ungrouped classes (not anecdotal reports); and (3) freedom from crippling methodological flaws. They examined these 52 studies for 15 variables: three types of grouping, five aspects of experiment, five features of course and setting, and two publication features. They then applied newly-developed statistical measures to describe and synthesize research outcomes. The term "meta-analysis" or the statistical "analysis of analyses" was first used by Glass (1976). Past reviewers, Kulick and Kulick comment, relied on narrative and box score methods to pull together studies, with "notoriously subjective approaches." The objectivity of meta-analysis "imposes on reviewers the strict discipline of quantitative proof."

What does their objective analysis reveal? In achievement, 10 of the 51 studies had statistically significant differences between grouped and ungrouped class performance: eight favored grouped classes, two favored ungrouped classes. The authors judge "that students gained somewhat more from grouped classes than they did from ungrouped ones. The benefits in grouping tended to be slight in the area of achievement ... an increase from the 50th to the 54th percentile for the typical student in a grouped class. The benefits were somewhat greater in the attitudinal area. Students in grouped classes clearly developed more positive attitudes toward the subjects they were studying. Grouping practices, however, did not appear to influence students' attitudes toward themselves and their schools" (p. 425). They also note that one subgroup of studies produced especially clear effects. In this type of study, students of high ability, or "gifted students were put into a special honors class for enriched instruction ... and these studies usually reported significant results of medium size achievement." They noted too that "the effect of grouping is near zero on the achievement of average and below-average students;

it is not negative." Their meta-analysis is indeed contrary to Dr. Oakes' positions. It certainly must carry some weight in our thinking, for it was aimed precisely at the question of the effects of grouping or non-grouping on secondary students.

Now I was eager to examine the data Dr. Oakes reported on her 75 mixed classes to allow comparison with her tracked class data. However, it was impossible; no such data were reported. Dr. Oakes limits her data to high-track and low-track classes to highlight their differences, and thus restricts her data to grouped instruction. A reader cannot draw a conclusion about the comparative benefits in achievement and attitudes between grouped and ungrouped instruction from the six chapters of her research study. It must be assumed, then, that Dr. Oakes intends the citations in Chapter I, "Tracking," to carry the full weight of supporting her contentions on tracking. My analysis of her references, I believe, shows that research findings vary, depending often on the researcher's philosophic orientation. However, for one subgroup, the gifted in secondary school, there is not equivocation: grouping of gifted and talented students for academic instruction with an advanced curriculum produces positive student gains. GATE classes in which content, materials, pace, and methods are adapted to the gifted student have the full weight of research supporting them.

A Final Consideration

In the Foreword to *Keeping Track*, Dr. Goodlad complains that Dr. Oaks and he "have been accused, for example, of being overly egalitarian. It is assumed in this accusation that we are opposed to special provision for the talented and gifted. Not so. We conclude, rather, that the gifted and talented are not well provided for in upper tracks, just as slower students are not well provided for in the lower tracks." I am very sympathetic to Dr. Oakes' legitimate concern for a better education for children from minority and poor families. I am equally concerned for providing well for the gifted, which also includes minority and poor children.

In additional reading, I found many articles written from the view that meritocracy is a myth in the schools, a myth that in the name of democracy denies to poor and minority children equal access to educational excellence. These readings led me to a provocative article with a different perspective by Aimee Howley, "Gifted Education and the Spectre of Elitism," written in 1986.[7] She judges gifted education in the schools as failing to give gifted students the means that will help our nation work toward social and educational equity. Here, in a qualitative discussion, she condemns gifted education for what she terms its frequently "vitiated non-cognitive curriculum," with its emphasis on "affective education, leadership training, career exploration, and values clarification. Thus the gifted may feel privileged, but are denied opportunity to fulfill their academic potential." What would "well providing" for the gifted mean to Dr. Howley? She urges challenging cognitive instruction and a gifted pedagogy that threatens elitism by insisting on "informed and critical appraisal of all topics amenable to rational consideration." What a far cry this pedagogy would be from Dr. Oakes' view, "I cannot suggest anything quite so easy as working only with the top kids." Dr. Oakes, I believe, is off the track in her view of gifted students, their groupings, and their education.

GATE classes in which content, materials, pace, and methods are adapted to the gifted student have the full weight of research supporting them.

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7. Howley, Aimee. "Gifted Education and the Spectre of Elitism." *Journal of Education*, 168, No. 1 (1986), 117-125.

At the time of publication, Dr. Anne Wallach was Associate Director of the Gifted Program at UC Berkeley.

There are No Gems in Generic Education

by Stephen Hostettler
(excerpts from the keynote address, NorthGATE Conference, Redding, CA, January 1989)

I am indeed sorry to bring bad news to this celebration of education. Perhaps you have heard that American public schools are in trouble. I call this news only because I've brought with me a number of articles from different *news* papers that all agree with this conclusion. American newspapers and, I suspect, Americans in general have been in agreement on this issue now for nearly 400 years. Even though I'm a high school teacher, I tend to agree; American schools are in trouble. Of course, on the other hand, American schools probably meet the needs of a wider range of children than the schools of any other country. I suppose a fair analogy is to think of the glass which is either half empty or half full, although in this case I'm afraid the real question is whether the contents are still effervescent or finally flat.

Exactly what kind of trouble are American schools in? The main problem seems to be that American kids just don't know their stuff. Why is that? I have here an article from the *Hartford Courant* which suggests that the trouble with American schools is the trouble with America. "Money and products are what commands (sic) respect," says Thomas Cangelosi. "Judged by this standard of excellence, teachers long have been considered failures by their students, 'What good is learning history gonna do me? It didn't do much for you. What did you earn this year?'" Obviously, this writer believes that American schools won't get much better until American teachers earn as much as American plumbers and American truck drivers. It does seem to me, however, that the students have asked a reasonable question, "Why should we study this?" I think the question deserves a better answer than, "Because it's on my list."

We should also consider the case that one of our district administrators put to me recently. He called me into his office the other day and said, "Listen, you know something about GATE. What can you tell me about these standardized test scores? You see the kids at this junior high school scored better than the kids at that junior high school. They're all identified gifted kids. What's going on?"

"Well," I suggested, "this junior high has a consistent and articulated program for its gifted students, whereas that junior high school has been very diligent in following the guidelines coming out from the State Department of Education demanding that students never be grouped according to their needs."

He said, "Really? You think just because one school has a GATE program for its GATE students that they actually achieve more?"

Is it possible that the lack of special programs could match the stuff that American students don't know? This article from the *Sacramento Bee* focuses on the lack of scientific knowledge among students. Most American school students believe that there were people living in the age of dinosaurs. Assuming that only a small number of student responses reflected religious belief, the directors of the survey concluded that American students "get an 'F' in science education." The survey found "similar ignorance" in subjects as diverse as planetary distribution and microbiology. Jon Miller, the expert contacted by the *Bee*, noted that "Only about 15% of US high school students study physics before graduation," and that, "You can't learn science by a process of osmosis." I would guess that Mr. Miller's statements could have been applied more generally.

If America's students don't know their stuff, how can we fix that? Most states have chosen one of two opposing philosophies in attempting to provide better educational experiences. One of these philosophies demands a generic approach to education—a sort of "one size fits all" method of scope and sequence. This generic education approach relies on the positive aspects of heterogeneous grouping to solve education's problems. It often goes beyond the concept of a "core" of information that all people would benefit from knowing to include an insistence that all students have identical educational experiences in the same sequence and at the same rate throughout their years in public school. The generic approach either disregards the existence of unique student needs or

assumes that all students' needs can be met in the regular classroom under the direction of the regular classroom teacher using regular classroom texts. Advocates of generic education use phrases like "integrated teaching," "literature-driven curricula," and "every American needs to know." They prefer to group students only according to chronologic age and consider other grouping patterns anathema. Advocates of generic education have heroes like Allan Bloom and Eric Hirsch.

Because I'm a fan of Trivial Pursuit, I happen to really like Hirsch's book, *Cultural Literacy: What Every American Needs to Know*. Even though I have to admit that I have no idea why every American needs to know anything in the book and that it does seem just a bit sleazy to publish a list of need-to-knows in one book and the answer/definitions in another much larger and more expensive book, I still think *Cultural Literacy* is fun. It is not education, of course. Even Hirsch admits that in an oblique, paradoxical way. It is, according to him, not necessary for students to evaluate, analyze, apply, or even comprehend any of the need-to-knows. Hirsch says, "In the minds of literary specialists (like people who read?) a literary work is a text, but that is not the cultural reality. The information about literature that exists in the minds of literate people may have been derived from conversation, criticism, cinema, television, or student crib sheets like *Cliff Notes*." I'm sure his omission of *Classics Illustrated* was unintentional. Now, I've never used Cliff's or anyone else's notes to prepare for a game of Trivial Pursuit, but I have to reprimand our children for memorizing all the Trivial Pursuit cards in the Genius edition. They studied all those cards, they said, not because every American needs to know them, but because it's fun to win. See if you don't have fun completing these phrases:

1. There is nothing new
2. There's more than one way
3. This land is your land;
4. Those who cannot remember the past

I especially hope you were able to complete that last one because those who cannot remember the past not only condemn themselves to repeating it, but condemn the children to suffer through the same prejudice, inefficiency, and stupidity that many of us had to suffer. Most of you can remember the time that generic education was ubiquitous — that it was American education. We have already tried the experiment of ignoring children's unique needs. We have known school districts perfectly willing to discard any students who were either unable or unwilling to learn "what every American needs to know." We cannot allow that to happen to our children again.

In their new book, *Multi-Cultural Literacy: Opening the American Mind*, Rick Simonson and Scott Walker offer a valid criticism not only of Hirsch's book but of the entire concept of generic education. They write in the introduction:

> *Though Hirsch's list does include penis envy, macho, and vasectomy, he fails to find significant mastectomy, gynecology, or Georgia O'Keefe. Nor does he deem it important for culturally literate Americans to know about alcoholism, El Salvador, or* One Hundred Years of Solitude. *Hirsch doesn't seem to consider it of value for Americans to know about food and agriculture, the environment, world geography, non-European history, or the plants and animals with whom we share the planet. Some of the omissions are the result of oversight. Many result from a particularly white, male, academic, eastern US, Eurocentric bias that severely limits Hirsch's and Bloom's and Reagan's and Bennett's concept of American culture.*

Therefore, since the list of what every American needs to know should most appropriately be created by every American, I'd like to offer ten need-to-knows of my own.

1. I need to know why we think every American student needs to take chemistry and physics in its typical, classical form. You may have seen an edition of *48 Hours* this year that featured a very creative man who teaches in an inner-city school. Every year, this man works with more than 150 students, five days a week, nine months a year, attempting to teach chemistry. His evaluation is that he reaches "maybe one or two students a year." Doesn't this seem a sad waste of energy and ability - an exercise in frustration and the destruction of self-esteem for both teacher and students? Could it be that this generic approach is bound to fail regardless of the ability of the teacher and the good intentions of the students? I need to know why this teacher's school can't find a means of presenting science concepts to its students in a relevant way.
2. I need to know where Phil Gonzales thinks

all the inept math teachers will go when we put everyone in Jaime Escalante's calculus class.

3. I need to know exactly who in the State Department of Education keeps insisting that we group students by age only. I'd like to talk to that person.
4. I need to know why the institution of American education has to run good ideas into the ground. I happen to find cooperative learning a very useful educational tool. I use it often - maybe 20% of the time. Now I find myself arguing against cooperative learning because so many administrators, consultants, and SDE evaluators insist that it's the only educational technique I can use.
5. I need to know if the California Assessment Program actually measures anything with its objective tests. Our students' CAP scores don't ever match any standardized test scores. They don't match scores on our district competency tests. This year, after a one-day workshop and some donuts, our students scored 50 points higher than last year. What wonderful teachers we must be. And why have the people who developed the CAP writing measurement decided to dump 2,000 years of Western logic and organization? Talk about rampant pluralism. Students no longer think in traditional rhetorical forms like comparison-contrast or classification. Instead we now have the autobiographical reflection and perhaps eventually the mnemonic mood piece. Is this a consequence of the fear all Californians have about the way we speak – that people from other states are laughing behind our backs – making jokes about California phrases like "Forsuredude," "Waytigit," and "Narlywaves?" Be honest with me. I'm tough; I can take i I just need to know.
6. I need to know why Oklahoma has a better vocational program for students than California does, why Arkansas has a better pre-school program than California does, and why 33 states have **mandated** programs to meet the needs of their gifted students and California doesn't.
7. I need to know why Bill Glasser can't see the logical fallacies in his analogy about learning teams and athletic teams. Does he really believe that team athletes don't have a unique interest and talent that binds them together? That athletic teams are heterogeneously grouped? That the vast network of community resources supporting athletic programs is available to the regular classroom teacher? Get a grip, Bill.
8. I need to know why all those people who quote Jeannie Oakes have never read Jeannie Oakes.
9. I need to know why American business has a better plan to save kids than American education does. Nancy J. Perry, in the November 7 issue of *Fortune* asks, "If 80% of the products a company turns out were defective, would the chief executive solve his problem by asking employees to work 20 minutes longer each day?" And I love her response, "Hardly." She gives a brief description of generic education at its worst and concludes that such educational experiences produce "graduates with the forbearance needed for unskilled manual labor, but devoid of the problem-solving skills necessary for today's competitive workplace."
10. If American education needs to be revised so badly, why do the Japanese want to buy it? Do they see something of value in it that we don't? I need to know.

Even though not currently in favor at the California State Department of Education, there is another philosophy – one opposed to the generic model. This philosophy suggests that while all students share a number of common needs, many students have unique needs and that addressing those unique needs is just as essential as addressing the common needs. The philosophy supports neither a skills-based nor a literature-based curriculum. It insists on a student-based curriculum. It recognizes that the strength of any culture is based on its diversity and adaptability. It encourages breadth rather than limits to content acquisition, appreciation rather than mere recognition of culture, appropriately varied rather than lock-step pacing of students through the curriculum. The student-based philosophy suggests that some, but not all, students will benefit from the study of Mandarin; that some, but not all, students will benefit from programs designed for pre-teen mothers; that some, but not all, will benefit from learning to test their own blood sugar; that some, but not all, will benefit so much from perfectionist-intervention programs that they will not commit suicide after finishing their first college mid-term.

The back flap of Hirsch's book concludes, "Thus even if a student has a basic competence in the English language, he or she has little chance of entering the American mainstream without knowing what a silicon chip is (sic) or when the Civil War was fought." Teachers who share the student-based philosophy believe that almost everyone will benefit from learning to use the computer as a tool. Many of them also know bigots replete with Civil War dates. They know that each of America's ethnic groups brings unique gifts to our culture that can be appreciated by all, but cannot and should not be attempted by all. They do not believe that there was a time in America's past when all Americans spoke with one voice, but they do believe that there was a time when many – black people, oriental people, native American people, female people, young people – had no voice in America at all.

In the last, wonderful interviews that Joseph Campbell did with Bill Moyers, he said that the most important thing for people to do is "to follow your bliss." The thousands of men and women in California who have become

Stephen Hostettler is an Honors English teacher at Pleasant Valley High School in Chico USD. He received the CAG statewide Teacher of the Year Award in 1986 and has served on the CAG Board.

teachers because they love children or because they love their subject matter (or both) are following their bliss. And as long as they are not beaten up too badly by "guidelines" and "frameworks" that demand obeisance, by off-the-shelf curricula that focus on trivia rather than on learning, and by whimsical assessment programs and fascist "quality indicators," I believe that they will instill in our children the essential American values that they model. I know that they will treat each child as a unique gem and that they will not insist on everyone having the same bliss at the same time.

Don't Look Now, But a Sunset is on the Horizon

by Jo Anne Viserta-Galinis

Two years ago the "new" GATE legislation reinstated the program and opened the doors to new districts. GATE was back in business, but the program was still tied to a sunset date. That means that the program will be reevaluated before 1995 (or the date pushed back). CAG is active on several fronts to bolster programs statewide to assist districts with teacher training, to provide models, etc. It is easy to forget that a sunset approaches in just three more years.

Complaints from around the state have come to the CAG office and to CAG regional representatives about GATE programs being dropped, cut, or changed to exclude certain grade levels or to include all students in a district as GATE students.

We have heard about districts which receive money for GATE programs but fail to address the needs of gifted and talented students in their reorganized site-based management plans.

We have listened to numerous stories about districts with GATE programs that do not have a minimum 200 minutes a week of differentiated curriculum. We have heard about homogeneous GATE programs in the elementary schools changed to heterogeneous groupings, of middle school programs changing classroom structures so they do not address the needs of GATE, and of high school honors programs totally eliminated. Parents have complained that programs have fallen apart, that districts have changed the programs, disregarding their submitted GATE plans.

CAG has heard verbally from educators and parents, but we have very little written documentation relating to the issues of the complaints. If you know of a GATE program that has been changed or eliminated, let us know in writing with documentation. Tell us specifically what your concerns are (e.g., identification/eligibility, funding, grouping/class placement, continuity/articulation, curriculum) and also include the configuration of your district or school (i.e., number of students in the district, number of GATE identified students). List information concerning persons you have talked with and the response you have received at the school, district office, or state level. Include printed materials from your district that document these concerns (e.g., the GATE plan which has been approved by the California Department of Education, letters, Board of Education meeting minutes, newsletters). Tell us what action you or others have taken concerning these issues.

We also need to hear more about those programs which are flourishing, which are challenging gifted and talented students with appropriate learning experiences. Brag about what your district is able to do in these times of tight budgets and educational change.

Let us hear from you with your good news and your bad. Send us supporting documents and help us be ready to seek appropriate action in Sacramento.

Jo Anne Viserta-Galinis is the Orange Region Parent Representative to the CAG Board.

Continued from page 1

Ability Grouping for Enrichment

Across the **five** meta-analyses (Kulik & Kulik, 1982, 1984, 1990; Kulik, 1985; Vaughan, 1990), the **two** best-evidence syntheses (Slavin, 1987, 1990), and **one** ethnographic/survey research synthesis (Gamoran & Berends, 1987), the following conclusions can be drawn:

1. While full-time ability grouping (tracking) for regular instruction makes no discernible difference in the academic achievement of average and low-ability students (Slavin, 1987, 1990; Kulik & Kulik, 1982, 1984, 1985, 1990), it does produce substantial academic gains for gifted students enrolled full-time in special programs for the gifted and talented (Kulik & Kulik, 1982, 1984, 1985, 1990; Vaughan, 1990).
2. High-ability student groups have more extensive plans to attend college and are more likely to enroll in college, but the research has not been able to substantiate that this is directly influenced by grouping (Gamoran & Berends, 1987). Likewise, research has not been able to substantiate that there are marked differences in the quality of teachers who work with high-ability students or in the instructional strategies and learning time apportioned in such classes. It is probable that the substantial gains in achievement reported for gifted and talented students in 6 of the 8 research syntheses is produced by the interaction of greater degrees of learning potential, teachers who are interested in their students and in their subject, and the willingness of gifted students to learn while in a classroom with other interested, high-ability learners.
3. Ability grouping for enrichment, especially when enrichment is part of a within-class ability grouping practice or as a pullout program, produces substantial academic gains in general achievement, critical thinking, and creativity for the gifted and talented learner (Vaughan, 1990).
4. Ability grouping, whether for regular instruction or enrichment purposes, has little impact on gifted students' self-esteem. When full-time grouping is initiated, there is a slight decrease in esteem, but in special programs for gifted students, there are no changes in self-esteem (Kulik & Kulik, 1984, 1990). Enrichment pullout programs show only a small but positive increase in self-esteem (Vaughan, 1990).
5. Ability grouping for the gifted produces a moderate improvement in attitude toward the subjects in which students are grouped. A moderate improvement in attitude toward subject has been found for all ability levels when homogeneously grouped on a full-time basis (Kulik & Kulik, 1982, 1990).
6. Ability grouping is not synonymous with "tracking" (Slavin, 1987, 1990). It may take many forms beneficial to gifted learners, including full-time enrollment in special programs or classrooms for the gifted, regrouping for special subject instruction, cross-grade grouping for specific subjects or for the entire school curriculum, pullout groups for enrichment, and within-class ability grouping, as well as cluster grouping (Kulik & Kulik, 1990). The major benefit of each grouping strategy for students who are gifted and talented is its provision of the format for enriching or accelerating the curriculum they are offered (Kulik & Kulik, 1990). It is unlikely that grouping itself causes academic gains; rather, what goes on in the group does.

Cooperative Learning for Regular Instruction

Across the **two** major meta-analyses (Johnson, Maruyama, Johnson, Nelson, & Skon, 1981; Johnson, Johnson, & Maruyama, 1983) and **one** best-evidence synthesis (Slavin, 1990) on the academic and nonacademic effects of mixed-ability cooperative grouping, the following conclusions may be drawn:

1. Cooperative learning in mixed-ability groups for regular instruction cannot be shown to be academically beneficial for gifted and talented learners. Likewise, there is no research below the college level to support cooperative learning in like-ability groups for gifted students (Robinson, 1990).
2. Although there is some evidence to support sizable academic effects for those forms of cooperative learning that incorporate individual task accountability (Slavin, 1990), little research has been reported which would allow this to be extrapolated to the gifted population.
3. Although there is some evidence to support sizable affective outcomes for mixed-ability cooperative learning, particularly for the acceptance of culturally diverse and academically handicapped students (John-

Dr. Karen Rogers is at the University of St. Thomas, St. Paul, Minnesota

Effect Sizes Reported for Research-Supported Gifted Program Options

Option	Academic Effect Size
Early Entrance to School	.36
Subject Acceleration	.49
Curriculum Compression (Compacting)	.45
Grade Skipping	.78
Enrichment (pullout) - curriculum extension	.65
Enriched Classes Ability Grouped	.33
Cross-grade Grouping (reading, math)	.45
Nongraded Classes	.38
Concurrent Enrollment	.36
Regrouping for Specific Instruction (reading, math)	.34
Advanced Placement	.29
Credit by Examination	.75
Cluster Grouping (specific differentiation)	.62
Separate Classes for Gifted	.33
Cooperative Learning	
Johnson's "Learning Together"	0
Slavin's TGT	.38
Slavin's STL (combination)	.30
Grade Telescoping	.56
Mentorship	.42

Note: The Effect Sizes listed cannot be directly compared with others in the table. Some represent one-time academic gains, while others may be possibly cumulative gains, progressively increasing the longer the practice is used. The quality of the criterion measures used varies greatly from practice to practice also, thereby confounding any cross-comparisons to be made.

Table 1

son, Johnson & Maruyama, 1983; Slavin, 1990), no research has been reported which would allow this to be extrapolated to the gifted population (Robinson, 1990).

Grouping for Acceleration

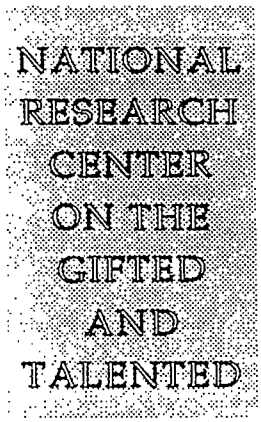
Across the one meta-analysis (Kulik & Kulik, 1984) and one best-evidence synthesis (Rogers, 1991) on accelerative practices for gifted students, the following conclusions about grouping for acceleration can be drawn:

1. Grouping for the acceleration of curriculum for gifted students produces substantial academic gains for the forms of Nongraded Classrooms, Curriculum Compression (Compacting), Grade Telescoping (Rapid Progression at Junior or Senior High), Subject Acceleration, and Early Admission to College. Advanced Placement programs were found to produce moderate, nearly significant academic gains as well (Rogers, 1991).
2. Those forms of acceleration for which groups of gifted learners may be involved do not appear to have a direct impact on self-esteem, either positively or negatively (Kulik & Kulik, 1984; Rogers, 1991). It is apparent that a host of other environmental, personological, and academic variables are more directly involved with changes in self-esteem.

Recommendations for Practices Involving Ability Grouping

Based on conclusions drawn from the research syntheses, the following guidelines are offered for educators who are considering various grouping options for gifted students.

GUIDELINE ONE: Students who are academically or intellectually gifted and talented should spend the majority of their school day with others of similar abilities and interests.
Discussion: What forms this option may take are open: Both general intellectual ability grouping programs (such as School Within a School, Gifted Magnet Schools, Full-time Gifted Programs, or Gifted Classrooms) and full-time grouping for special academic ability (such as Magnet Schools) have produced marked academic achievement gains as well as moderate increases in attitude toward the subjects in which these students are grouped.
GUIDELINE TWO: The Cluster Grouping of a small number of students, either intellectually gifted or gifted in a similar academic domain, within an otherwise heterogeneously grouped classroom can be considered when schools cannot support a full-time gifted program (either demographically, economically, or philosophically).
Discussion: The "Cluster Teacher" must, however, be sufficiently trained to work with gifted students, must be given adequate preparation time, and must be willing to devote a proportionate amount of classroom time to the direct provision of learning experiences for the cluster group.
GUIDELINE THREE: In the absence of full-time gifted program enrollment, gifted and talented students might be offered specific group instruction across grade levels, according to their individual knowledge acquisition



in school subjects, either in conjunction with cluster grouping or in its stead.

Discussion: This "cross-grade grouping" option has been found effective for the gifted and talented in both single subject and full-time programming (i.e., Nongraded Classrooms).

GUIDELINE FOUR: Students who are gifted and talented should be given experiences involving a variety of appropriate acceleration-based options, which may be offered to gifted students as a group or on an individual basis.

Discussion: It is, of course, important to consider the social and psychological adjustment of each student for whom such options are being considered, as well as cognitive capabilities in making the optimal match to the student's needs.

GUIDELINE FIVE: Students who are gifted and talented should be given experiences which involve various forms of enrichment that extend the regular school curriculum, leading to the more complete development of concepts, principles, and generalizations.

Discussion: This enrichment could be provided within the classroom through numerous curriculum delivery models currently used in the field, or in the form of enrichment pullout programs.

GUIDELINE SIX: Mixed-ability Cooperative Learning should be used sparingly for students who are gifted and talented, perhaps only for social skills development programs.

Discussion: Until evidence is accumulated that this form of Cooperative Learning provides academic outcomes similar or superior to the various forms of ability grouping, it is important to continue with the grouping practices that are supported by research.

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Self Reliance and Gifted Education

by Julie Drummond

People ask me all of the time, "Why did you go to college early?" That's a difficult question because the answer is not something straightforward that can be explained sufficiently in two sentences. I think that a person's education is one of the most important things there is, and as such, it should be thought about carefully. Each individual should follow the course that will be most beneficial to her own education. I knew deep down that the course I was on, public school, was not right for me. Whether it was the particular school I was attending or the system in general, I don't know, but it wasn't right. To give you some idea of why I choose the EEP (Early Entrance Program). I have decided to begin with some of my favorite quotes, and explain what the quote means to me with regard to a good education. The quote is from Emerson, and it's short, but I think it is one of the truest statements ever made.

"Discontent is the want of self-reliance."

"Discontent"... that's a pretty vague word. Discontentment is what I was feeling quite a lot in junior high school. Discontentment with my education, "The teacher thinks I'm a smart-aleck, the kids think I'm a geek, and to top it all off, my grades are dropping because I'm bored out of my mind!" Discontentment with my social life, "My classmates want everyone to try to be exactly like they are, but when I do try, they just laugh at me. I'm not exactly the right sort of person to wear a lot of make up and have what I call 'tall hair'." What I've come to realize is that discontentment did, in fact, stem from a lack of self-reliance. When I started Transition School, which is the EEP prep year, I don't think I could have given this analysis, but I do know that I was thrilled to hear a part of one of the orientation lectures which said, "Here, external standards that define the general teen subcultural don't matter much. Here, you will be valued chiefly for two things, your human decency, and how you use, or carry, your mind."

Although, in my opinion, self-reliance is one of the most important things to be encouraged in a student, that student should set straight exactly what self-reliance does and doesn't mean. It should not be taken to mean trying to do everything by oneself and not asking for help when it's necessary. It also doesn't mean being closed-minded to every opinion except for those which are already familiar. Translating self-reliance in those ways is something which should be stopped before someone gets the mistaken idea that asking a question is a sign of incompetence or dependence. I don't think it's possible for anyone to be well educated or to get where she wants to go in life without asking many people for help and without being exposed to and analyzing many opinions different from those which she might already hold.

On the other hand, self-reliance should be encouraged in the form of having the self-confidence to speak out in class, to ask a question when there is confusion or doubt, to give an opinion during an open discussion, and even, if it's appropriate, to argue (perhaps a better word is debate) for what one thinks is true.

Another kind of self-reliance, which I think is the most important kind, is having the confidence to be yourself, to be an independent individual who isn't very concerned with what other people want you to be or how other people think you should act. One thing people sometimes say to me when they find out that I started college early, is, "Don't you fell you missed out on a part of childhood?" I just feel like saying to these people, and sometimes I do, "What do you mean, 'missed out on', and why do you speak of my childhood as if it were over?" Childhood isn't a time period with definite boundaries. Childhood is a state of mind, and a good one, in which the imagination can run free and many society-caused inhibitions are forgotten. As long as the state isn't a constant one, childhood is not equivalent to immaturity, and students need to be reassured that acting childish at times doesn't mean that they are immature, or in popular terminology, "book smart, but not street smart."

For me, becoming self-reliant goes along with finding out who I am. During school is a great time for a person to find out more about who she is. Students already have some idea about who they are. They know what they like

and what they don't, and they know, as do their instructors, that they have the intelligence to examine many different views and values and to come to logical conclusions about what they agree with and what they don't. School is a time when people get exposure to adults other than their parents and to other students with diverse backgrounds. They should be encouraged to explore new ideas and beliefs, and examine many different options for the present and the future.

As a way of learning about themselves and gaining self-reliance, I think that students should get involved with projects such as volunteering to help feed the homeless, or clean up the planet. The importance of letting them know that they can get involved with what happens to them as members of a community cannot be stressed enough. By being encouraged to write letters to politicians, or to get a group together for a discussion, or to write an editorial if they have a strong opinion about something, they are being shown that not being able to vote, or having opinions different from those held by influential adults around them, doesn't mean that their voices can't be heard as clearly as anyone else's.

Another major application of self-reliance is to live your life, and not the one you think you should live. From the time I was in second grade until the beginning of my freshman year in college, I was positive that I wanted to be a surgeon. Everyone seemed so happy about my interest in medicine, that I stopped really thinking about it, and the answer "surgeon" just popped out whenever anyone asked about my career plans. Then the summer before my freshman year in college, I got my first professional acting job. I became completely obsessed with acting and decided, to the complete dismay of my parents, to get my bachelor's degree in speech communications and become a professional actress. This caused major turmoil. I heard things like, "What a waste of your intelligence!" and, "Why don't you concentrate on getting a real job where you can earn some money!" Being sort of a stubborn type, comments such as these made me even more adamant about my goal. Then, about six months later, after having taken an introductory anthropology course, I made a big mind change and decided that I wanted to be an archaeologist. I took some more classes, and later made a slight change, finally declaring an official major in physical anthropology.

Changing my mind that many times has taught me a lot, and has given me a fairly well-rounded education so far. What I think should be conveyed to students is a warning about letting other people decide for them what they are going to do. They should be encouraged to rely on their own feelings and taught that there is no such thing as a job which is a "waste of their intelligence." If that's what someone wants to do, then it's fine. A gifted person shouldn't feel as though she has to pursue a stereotypically "gifted career" such as medicine, law, or scientific research. If she wants to, that's fine, but no one should feel compelled to do so.

Another thing that a lot of intelligent people face is an idea that, as bright people, they are supposed to be the best at everything they do. Students need to be reassured that no one is good at everything, and it's up to them as individuals to be self-confident enough to take risks, knowing that they might not always succeed. It's not necessary to lie to them by telling them that grades are not important, because, as you know, any university or graduate program is going to look at grades. However, people need to realize that their education is more important than any grade. If someone bombs a class gradewise, but that person learned something from it, then the class has been a success. The danger if this isn't learned is that an intelligent person, in order to have a good GPA, or in order to keep up a "smart" image, will take classes only if she is sure she will succeed. This will not add very much, if anything, to her education. It is ridiculous to take a class in which all that is learned is already known, just so someone can add another A+ to the report card. People should be encouraged to be self-reliant by going out on a limb and taking a class in a subject they've never had before, or a subject they've had trouble with before – they might even discover something new to major in!

I don't think that there is any one correct way to educate people. There are, however, a few things that are important to emphasize. Creativity is a must on any level. Whether it is in the form of creative writing, or putting on skits, or whatever, the creative process is an important part of the learning process as a whole. Creativity can also be taught in the form of problem solving. One of the best things I did in elementary and junior high school was called Texas Future Problem Solving (obvi-

ously, I was living in Texas at the time). A group of five students was given a wide-range problem (overcrowding in prisons, for example) and a brief summary of the situation. We were then given a certain amount of time to brainstorm 20 problems. We then made up criteria for choosing the problem we wished to deal with. We chose one problem and then brainstormed 20 solutions. Again making up our own criteria, we chose the best solution and elaborated on it. Every aspect of the exercise was time limited, and we learned how to prioritize and brainstorm efficiently. This kind of exercise, since it applies to current problems, is interesting to students and is about as far from "busywork" as you can get.

Another aspect of education is individual work versus group work. Students need to be taught using both techniques. One big controversy is whether or not students should always be grouped according to ability. There are two obvious sides to this issue. One – the slower students should not be pushed faster than they can go, nor should the faster students be held back. On the other hand, putting students into groups by ability gives them an immediate, and damaging stereotype – the "dummies" or the "brains" or the "average kids." I don't think that either argument is entirely wrong or right. Students need to learn how to work in groups with people on different levels, and yet, they also need to be able to find their own pace and work at it. One thing that I think should be avoided at all costs is forming an "elite" group out of the brightest students or a "remedial" group out of those students who need the most extra help. Both of these titles are equally unhealthy, especially in junior high school, where people's opinions mean the most.

I think that one incredibly important skill that should be learned in school is how to deal with different types of classroom situations. Dealing with this area can also serve as a solution to the grouping problem. Students should learn how to take notes in a large-group, lecture situation. This, besides keeping an entire group together, teaches them how to take clear, concise notes, and how to write down any questions so that they can be asked at the end of the presentation without having to interrupt the lecturer. Small group seminars are equally important. The important thing is not letting two or three people do all of the talking. The key is not shutting up the talkers, but encouraging, even forcing, the silent ones to contribute to the discussion.

Up to this point I have been talking purely about the academic aspects of education. You know as well as I do, however, that education doesn't stop when the bell rings. Important also to building self-reliance is having responsibilities – feeling independent and trusted. Needless to say most "professional" jobs are not available to the under-15 age group, but that doesn't cut out all opportunities for responsibility. Young children can be assigned specific tasks at home, such as housecleaning, feeding pets, and helping with meal preparation. Older kids can babysit, do yardwork, or have a paper route. Regardless of the specific task, it should be encouraged, but still remain voluntary.

Another aspect of nonclassroom education is hobbies. I am a firm believer in the idea that the hobbies which one pursues help to develop that person's character. A person who reads a lot will most likely have a large vocabulary and an active imagination. Someone who plays sports will be physically fit and work well in teams, while someone who spends a lot of time with computers might become very good at programming, or just dealing with computers in general (a very important skill!). Even hobbies that are sometimes considered unhealthy (for example, watching television) can be useful in small doses. The important thing here is balance. Any hobby is unhealthy if it is all that a person does. If a child shows a particularly strong attraction to a certain hobby, don't prevent her from doing it. Encourage her to become involved with other things as well.

Basically, what I've been trying to convey to you is the idea that a good education is possible for any child, regardless of his or her specific strengths or weaknesses. For the most part, even young children know what is right for their particular needs. A good general rule to follow might be: independence with guidance, working toward a goal of self-reliance. The benefits of a good education are limitless: better schools, better jobs, and a sense of personal achievement that only the independent can experience. It certainly doesn't create perfect people, but it does encourage them to learn from their mistakes and get back on their feet again after a fall. This world's future is its most precious natural resource, and the more self-reliant it is, the longer it will last.

Julie Drummond is a 17-year old junior at the University of Washington, who entered the Early Entrance Program (EEP) in 1988 after the eighth grade. She is a Physical Anthropology major who lives in a dorm on campus.

Announcement of Research Program Problems and Patterns in Families of Gifted Children

by Richard S. Swart

Announcement of the following project has been approved by the Board of the California Association for the Gifted. Mr. Swart is a CAG member who serves on the At-Risk Committee.

Purpose of Study

A project in applied family therapy research by Richard Swart, MSW at the Mental Research Institute, Inc. (MRI) in Palo Alto, California, will seek to identify and describe common problem patterns that exist in families of gifted and talented children. Through the use of a family therapy process with a reflecting team (observers who then give feedback to the family and therapist in the presence of the family), attempts will be made to design brief and effective techniques of family counseling to deal with these issues. All researchers are trained professional psychotherapists. MRI is an international training site. At times participants may include physicians, psychologists, anthropologists, and assorted faculty members from universities around the globe, all under the supervision of licensed psychologists. Mr. Swart will be a member of all therapy teams and is the chief researcher.

It is hoped that these techniques will advance the knowledge base of the gifted counseling literature. At this point, almost all techniques were developed through interaction with white, middle class families in the Midwest. We are especially interested in working with minority families, non-traditional family groups (including lesbian and homosexual couples raising children), economically deprived families, etc. This does not mean, however, that more traditional families are not welcome to participate. Much of the research literature utilizes structural models of family therapy. This project will utilize techniques from the narrative and constructivistic schools of family therapy, which are at the cutting edge of critical thinking about families. There is also no literature documenting brief counseling techniques with this population. This project will be time limited.

Dates of Study

The study will begin immediately and continue until April 30, 1992. Families already enrolled may be followed until the end of May, but no new families will be accepted after April 30, 1992.

Requirement for Participation

Families who have a child who is identified as Gifted and Talented by a local school district, or who has been tested by a licensed psychologist and scores above the 98th percentile on a standard intelligence battery, may participate. Neither MRI nor Mr. Swart will test or assess any child. This project is not involved in the controversy over identification practices. It is hoped that local school districts will have utilized gender- and culture-sensitive testing methods.

While no specific type of problem is being sought, examples of problems affecting families can include: depression, family conflict, severe underachievement, perfectionism, eating disorders, school refusal, aggressive or oppositional behavior, self-mutilation, suicide, severe marital conflict due to school problems, etc. The identified problem must in some way relate to the child's education and/or giftedness. Ideally families will not currently be seeing another therapist. If they are, they will only be considered for a consultation appointment.

Obligation of the Family

This project is free of charge to the family or school district. All members of the immediate family must be available for service at either 1:30 PM or 4:00 PM on Tuesday afternoons. Families must agree to video and audio taping. The family must agree to a three-month follow-up interview to be conducted over the phone. Access to testing and to school records for the follow-up period must also be granted. Families will have the right to refuse broadcast of video tapes outside of the MRI facility or Mr. Swart's office.

Services will be time limited. It is anticipated that no more than eight sessions will be given to any family. Many families will be seen only one to three times. Families have the right to terminate treatment at any time. A limited number of families will also be seen for consultation appointments only and no follow up will be offered by the agency or Mr. Swart after the consultation. This is designed to allow participation of families who may be geographically distant from the agency.

MRI and Mr. Swart will screen all families before accepting the case. We reserve the right to refuse any family without cause. Once all available slots are filled a waiting list will be maintained. Families will have the option of filling out surveys for the purpose of a waiting list comparison group. However, since this is not an empirical study, no randomization will be attempted. Once a family is accepted, they will be scheduled in the next available slot.

For further information

Contact Mr. Swart directly. Do not contact the Mental Research Institute as no one there is available to answer questions. You may reach Mr. Swart at CPC Hospital during working hours at 510/796-1100 or through his answering service after hours at 408/322-4366.

His mailing address is:
39021 Sundale Drive
Fremont, CA 94538

Stick up for Yourself!

Every Kid's Guide to Personal Power and Self-Esteem

by Gershen Kaufman and Lev Raphael

Reviewed by Todd H. Bellinger

Introduction

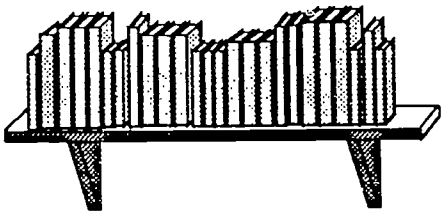
In the first book section, titled "To Parents and Teachers," the authors state that "personal power and positive self-esteem are skills that can be learned right along with reading, writing, and arithmetic."

Contents

This 76-page paperback is divided into the following thematic sections: Being Responsible, Making Choices, Getting to Know Yourself, Getting and Using Power in Your Relationships and Your Life, How to Live Happily Ever After, and Learning to Like Yourself.

Strengths

Stick Up for Yourself! is a generally effective learning tool because of its readability and its real-life behavioral examples. Written in succinctly-phrased language, while avoiding jargon and complex vocabulary, the book makes quick enjoyable reading for students from pre-teen through adult. Also appealing to the reader is the brevity of the topic development and the book itself. Enhancing its readability are the real-life negative behavior examples. These situations include both female and male central characters, whose behaviors are common to "every kid," not just those from dysfunctional families. Because this book is easy to read for a great range of readers and uses characters and behavior examples common to the human experience, *Stick Up for Yourself!* is a generally effective learning tool.



Weaknesses

In my opinion, *Stick up for Yourself!* needs positive behavior examples, a clearer visual presentation, and a greater use of multi-modal learning activities. Though of excellent quality, the behavior examples are almost entirely negative, portraying people as not "sticking up for themselves." Positive examples which show people using their "personal power" would significantly improve the book's effectiveness.

The use of drama, art, music, and physical activities for topic exploration and development would make the book more appealing and more effective for a wider scope of readers. (The teacher's edition does provide some variety, but most involve listing, discussion, and some role-playing.)

Conclusion

"The next time the other kids tease him, Peter looks them straight in the eye and says, 'Even if you think so, I don't. And my opinion is the only one that counts. I know myself a lot better than you do.' Peter knows not to give anyone else the power to determine how he feels."

As it is for all people, the "personal power" Peter has claimed for himself can be learned. This book can effectively teach many students, pre-teen through adult, the crucial skills which promote "the self-esteem and personal power" learned by Peter.

Free Spirit Publishing, Minneapolis, 1990, $8.95.

Todd Bellinger is an eighth-grade Language and History teacher at Twin Hills School, Sebastopol, CA.

The 1992 California History Calendar

Compiled and written by Jim Silverman.

Reviewed by Jo Anne Viserta-Galinis

Did you know that Christmas Day 1849 was the famous San Francisco Fire or that on August 18, 1860 a 100-lb. gold nugget was found near Sierra City?

These, and other arcane facts, can be found in the 1992 California History Calendar, a must for anyone who enjoys history. The black and white, 12" by 15" fold-out calendar includes a wealth of historical information about events which occurred in California, from 1542 to the present. The author lists historical events for each day of the month on one side of the fold-out while presenting upcoming "history day" events in various locations in California for 1992.

For each month there is a picture and a listing of who did what or what event occurred on each date. Readers will want to go directly to their own birth dates to see what took place on that date in history many years ago. Silverman has drawn upon many sources for this information, which makes this calendar a particularly good reference piece for students studying California history.

Instructions on how to play three different games using the calendar are also included, as well as a "find the mistake" contest (which awards the winners a 1993 calendar), a California History Festivals Hotline for event updates, and an invitation to readers to submit important and interesting events which will involve aspects of California history for 1993. The calendar retails for $12.95 and can be obtained through The California Kids History Catalog, 707/996-6077.

Jo Anne Viserta-Galinis is the Orange Region Parent Representative.

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Please share this copy of the *Communicator* with a friend when you have finished reading it. He or she might like to use this form to become a CAG member and active supporter of gifted education. Because of CAG's role in lobbying for appropriate education for gifted and talented students, dues payments to CAG are not tax deductible as charitable contributions for Federal income tax purposes.

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Communicator

Progress Toward Parity

Cultural Diversity in Gifted Education: A Better Chance at Succeeding

Elinor Smith and Rosa Peréz

Why is it that, since the inception of gifted programs, discussions of cultural diversity have arisen time and time again? What have we learned during each cycle of attention to this issue? Why does it appear each time that we're addressing something new? Why do we seem unable, on a broad scale, to do the creative problem solving we teach our students and to move beyond the stage of sensing problems and challenges toward solutions?

It would be easy to allow the external pressures of increasing numbers of ethnic student populations, requirements of legislation, and district demands for equity in gifted education to provide the rationale for revisiting the issue of cultural diversity with renewed determination. The danger of acting solely out of this rationale is that it encourages a lack of effort towards lasting approaches, ones that require acting out of conviction. If our habit had been to do the right thing, then our successes would be obvious and we would be able to tolerate the need to work for further progress on this issue. When we act in response to mounting external pressures, our attempts tend to be superficial and short-lived.

We prefer to examine some substantial, though less frequently acknowledged, beliefs and attitudes that can be used as excuses for our failures and can become insurmountable barriers to effective thought, planning, and action.

Barrier #1: Equity in gifted programs is a difficult problem and a growing one.

Where this view is prevalent, the task becomes more troublesome and even impossible, often preventing any reasonable action from being taken. The targeted populations themselves come to be seen as the "problem."

A more helpful way of looking at equity in gifted programs, when we are speaking about diverse populations, is to recognize this as simply one aspect of a guiding principle of gifted education – equity or equality of opportunity to learn. Programs for gifted students exist in order to provide opportunities usually guaranteed to all students, but which the standard curriculum does not provide for gifted students – opportunities to grow and learn at a level of challenge commensurate with their potential, to develop the skills of learning-to-learn, and to become high-level producers and performers.

Giftedness, by its very nature, expresses itself in groups of gifted students in a multitude of ways. Gifted education provides equality of opportunity to learn amidst this diversity. How is equity any different when it comes to culturally diverse gifted students? Incorporating differences should be a piece of cake for us. We, in gifted education, should have written the book on equity!

Continued on page 42

EDITOR'S COLUMN

Jean Drum

From Melting Pot to Salad Bowl

First it was the melting pot. People from all parts of the earth came to America, independent thinkers who wanted freedom, farmers who wanted land, the persecuted who wanted safety, the poor who wanted a better life. When they came, speaking many different tongues, cooking many different foods, cherishing many different traditions, it was assumed, both by these newcomers and those who already lived here, that the best thing that could happen was that they would all turn into Americans. They would become speakers of English, they would learn to eat the foods that were eaten here, and they would adopt the habits and lifestyle of their new home. Not that the ways they brought with them would entirely disappear – not at all. Instead they would blend together with what was here and add to it, producing a new culture. The English of America would become lively with new words and phrases. American dinner tables would be set with dishes from the four corners, adapted to use what will grow here and shaped to American tastes, but definitely exciting and cosmopolitan. Everyone would celebrate the Fourth of July with fervor, but other holidays, folk songs, or ways would add to the fun. It seemed like a wonderful idea at the time – a new culture for a new world.

Then we began to question this idea. Did we really want to mix it all up into one grand goulash (or misch-masch or Mulligan stew), a whole new flavor, but one where the individual spices got lost in the whole? Perhaps, we said, what we really want is a crisp vegetable salad. The veggies are separate, we can recognize them, appreciate their differences, but at the same time they're all together in the same bowl, united by a tasty dressing. Surely, we said, it's possible to keep intact everything we brought with us and preserve it, and still build new lives as Americans. We began to vision ourselves as a vital, varied culture, where differences are appreciated and cherished even as common goals are shared.

It's not easy to be a multi-cultural, multi-lingual, multi-valued country. It's especially not easy to set up an educational system in that kind of country. Most of all, it's not easy to be sure that this educational system really educates, that is, draws out of each student his or her full potential of talent and worth. We are trying, though, and we won't be satisfied until we feel that every student is getting the best possible chance. We'll need to be very gifted and talented to rise to the challenge, but isn't that what we're all about?

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Submission of material

CAG encourages all interested parties to submit articles for publication. All submissions will be given careful consideration. Photos and camera-ready art work are particularly desirable. Send all material with your name, address, and phone number to Jean Drum, *Communicator* Editor, 7822 Belgrave Avenue, Garden Grove, CA 92641, 714/663-6584.

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CALENDAR

April 24-26, 1992
Society of Pediatric Psychology
Regional Meeting, Holiday Inn, Union Square, San Francisco
Workshop by Rita Culross on *Gifted Children Dealing with Stress*
Contact Mary Crittenden at 415/476-0353

April 25, 1992
8:30 am - 3:30 pm
GATE Fifty Mile Club Conference
Teaming Up for GATE
Florin High School, Elk Grove
Contact Sharon Freitas for information 916/686-7759

April 27, 1992
Open-GATE teleconference
National Report on Gifted Education

May 9, 1992
8:00 am - 1:00 pm
Los Angeles City/County GATE Conference
John Muir High School, Pasadena

June 12-14, 1992
Nevada Association for Gifted and Talented (NAGT)
Coming Together:
New Beginnings for Gifted and Talented
Reno, Nevada
For information call 702/885-6355

July 23-25, 1992
Supporting the Emotional Needs of Gifted (SENG)
11th Annual Conference, Minneapolis, MN
Contact Leona Gray, 513/873-4300

August 3-7, 1992
Rimm Underachievement Institute
Pewaukee, Wisconsin
Concurrent program for children, ages 6-18
Contact 800/475-1118

August 7-12, 1992
12th Annual International Conference on Critical Thinking and Educational Reform
Cultivating the Reasoning Mind:
Teaching, Testing, Standards, and Assessment
Sonoma State University
Contact Trish Taylor, 707/664-2940

IN THIS ISSUE

PRESIDENT'S COLUMN

Sandra Kaplan

One of the most prevalent features of contemporary education is change. Whether defined as restructuring or reform, the concept of change evokes questions, presents challenges, and creates discomfort. One inevitable feature of change is the domino effect; as general education changes, gifted education also changes. Resistance to this change process produces an attempt to find "the enemy," the culprit, or the factors responsible for the changes that are taking place. The enemy can be real or fictitious. The enemy can be individuals or institutions. The enemy can simply be "the times." Regardless, identifying the enemy will not alter the changes in progress.

However, there are some things which will not change. These things need to become the focus of our attention and should direct our efforts. One thing that will not change is the presence of gifted students in our school. Another thing that will not change is the right of these gifted students to an education that challenges them.

Most importantly, the need of educators to defend their concern and efforts to provide opportunity for gifted students doesn't change. A parent or educator should not have to apologize for recognizing and responding to gifted students. A real enemy is the lack of knowledge on the part of those who put educators of the gifted on the defensive. Concern for the educational needs of gifted students should not take the form of resistance to educational changes in general or in gifted programs.

There are positive consequences of general educational changes for gifted students and programs. For example,

- authentic testing removes the ceiling on performance that hindered true assessment of the gifted student's abilities.
- articulation of standards could ensure the types of educational responsibilities educators of the gifted have long advocated for these students.

There are many advantages to gifted education in becoming a partner in educational change!

Letter from the Governor

At the recent conference, Maureen DiMarco read the following letter from Governor Pete Wilson.

Office of the Governor
State of California
January 10, 1992
To: California Association for the Gifted

I am pleased to extend a warm welcome to all those who have gathered for your 1992 Annual Conference, being held in Long Beach.

The education of our youth is among our most vital responsibilities, one which can only be met through the cooperative efforts of all those individuals and organizations dedicated to making this goal become reality. Providing quality, comprehensive educational opportunities for all citizens is an important task, and as Governor, I am determined to do what is necessary to ensure that California's education system remains second to none.

The quality of our educational institutions is a direct influence on the type of academic experience that students enjoy, and you are to be commended for your efforts over the years to support many of the Golden State's most gifted students. For three decades, your organization has made valuable contributions, and I am confident that you will continue to meet these important needs and continue to contribute to our global reputation for educational excellence.

To all in attendance, please accept my very best wishes for a successful conference.

Sincerely,
Pete Wilson

Keeping Kids First

by Maureen DiMarco
highlights of the keynote address at the 30th annual CAG conference


Maureen DiMarco

Times have changed for California, and schools, as a result, have had times change for them. Most particularly, times have changed for kids. They're not times that I think are particularly nice for kids and the outcomes are becoming more evident everyday. Yet where can you go where you don't hear someone telling you kids come first? Kids come first. We have to *make* kids come first. That rhetoric is everywhere. I'm encouraged by it. Presidents say it, governors say it, legislators say it, voters say it in the polls over and over again, the school boards say it, the teachers, the administrators. We're all saying it in the school community, but saying it, as the old saying goes, doesn't make it so. And clearly in this country, saying it has not made it so.

Consider, just partially, some of the statistics. In this country today, the richest country in the world, every eight seconds of a school day, a child drops out. Every 26 seconds a child runs away. Every 47 seconds a child is abused. Every 67 seconds a teenager gives birth. Every seven minutes a child is arrested for a drug offense. Every 37 minutes a child is killed or injured by a gun. Every 53 minutes in this country, this wealthy country, a child dies of poverty. Every single day in the United States of America over 100,000 children are homeless. And every single day in our homeland, six teenage children commit suicide. If "kids come first" is to mean anything, we should be galvanized, absolutely galvanized as a society to change those statistics, those dreadful statistics. But in order to do that we have to change them at their source.

There are those who believe that if only we change the *look* of our system, if only we rearrange the delivery or the curriculum we can forget about addressing the needs of kids elsewhere. When my office inventoried children and youth programs in this state, we quickly saw the results of that attitude. We took all the programs and we plotted a matrix. We had one axis starting at zero, prebirth, and going up to adulthood. And on the other side we had all the issue areas affecting children: recreation, health, mental health, family, juvenile justice. Then we took the programs for kids that exist in the state of California and we put them on a matrix based on the issue area and what age it's supposed to serve. And I want you to know that we don't have a box or a piece of paper big enough to list all the programs that are targeted for children in ninth through twelfth grades. But it's a very sparse scattergram in young years when the problems start. Clearly the state has succumbed to the notion that all kids' issues can be fixed in the curriculum in grades 9 through 12. And I must tell you, I have yet to see the curriculum or instruction methodology that cures child abuse or poverty or neglect or chronic illness. I don't care what grade you add it to, it has to start younger.

The real help for our kids, the real way we make kids come first, is not to keep changing the look of our delivery system but to insure that our total society and our government start addressing all of the causes and all of the problems we see come to our classrooms each day. The problems of our children, the burdens that they carry are not caused by the school, they are *brought* to the classroom. We must not be timid or defensive as educators or as parents. We must educate our communities about the human and financial cost of kids not coming first in this state. In order for us to do that, in order for us to have the credibility to do that, it's going to entail some risks. It's going to require some change in our behavior, in our advocacy. It's going to mean that we have to take ownership of all of the problems that preclude kids from coming first.

A questioner at a recent meeting stated in very ominous tones, that the ever growing numbers of children who do not speak English are sapping the strength of the educational system and we should do something about that. When are we going to recognize that California is the richest diamond mine on this planet! We have in our midst the potential for the most phenomenal multilingual, multi-cultural work force of tomorrow – if only we choose to mine those diamonds and develop them and give them that opportunity to shine, instead of seeing them as problems in our

midst. They are not problems, they are our hope for the future we want for all of our children. We must make sure that our neighbors, the ones we don't like to talk to because they don't like schools or kids, understand what's going on with the kids in this country. Find a way to convince them. Unless we do, we are doomed. We must make sure that every single person in this country knows that the failure to invest time, effort, energy, and resources in our children, builds a debt that is going to be paid, no question about it. Indeed, we are paying for it now.

We know that kids impact and are impacted by every part of the budget. We will have far more credibility when we are able to stand up and say money for health must be spent, even if it means we don't get as much for education right now, because, if we don't have healthy children coming to our classrooms, I don't care how much we teach or how many materials we have, we can't educate that child. We in public education know the children better than anyone else and those needs stare us in the face every day. When we broaden our advocacy for children into all areas and have the courage to stand, even when we know it means we may not get all that we need, our focus on what the child needs will pay off not only for the child but also for the system and the professionals who are struggling so hard to meet an ever increasing burden.

Together we must, as educators and as people who care about kids, be together. It is absolutely vital, more now than it has ever been in our history, that we cease our endless public warfare in the education system. Every time teachers attack the board, or the board attacks the administrators, or the administrators attack the teachers, the public does not take sides. They don't believe the teachers over the board, or the board over the administrators, or the administrators over the teachers. They believe all the charges. The cumulative effect is that they believe none of us are any good. We have to stop that. We must be together. We must collectively assert our authority. We must impact our communities, not just each other. We must make sure that our elected representatives understand what's going on with our kids and what their needs are.

Prison costs and welfare costs and medical costs are all dollars we'd rather spend somewhere else. We would rather invest them in continuing to improve our kids. We must make people realize that those are kids' issues that have grown up. We must make them understand we're going to pay for them three times over. We're going to pay for what we're currently doing, we're going to pay for what we should have been doing, and we're going to pay for the consequences of what we did not do.

The solutions are to stop the finger pointing and to recognize that our children are not a single issue. Kids don't just appear at 8:00 in the morning and disappear at 3:00. Kids' issues are multidisciplinary. The solutions that we talk about as experts on children, as people who care about children, are not just in the classroom, but they are health issues, they are prenatal care, they are community issues, safety and recreation and housing. They are family issues, employment and parenting, child care and literacy. They're economic issues. It is a tragedy that a fourth of our children in this state live below the poverty level. And yes, they are educational issues as well, but education can only do so much. Children spend about 10% of their lives between ages five and eighteen in school. The quality of the other 90% is essential to whether or not a child can benefit from school even if he has the most talented teacher in the world.

Everyone is directly affected by how well our children are treated. It is possible to change. It is being done everywhere, but the tide has grown large. Without something more than just individual efforts, without our coming together collectively for our kids, I can predict, and you can too, what the outcomes will be. Any teacher in this room can tell you how different it is now than it was even a few years ago, how much more difficult it is for many children even to have a chance, and what serious issues children are now having to deal with. It is difficult for us even to communicate to the public what really is happening.

Somehow we have to let the people know June Cleaver is no longer vacuuming in her high heels and pearls. It is essential that people understand that our children are, without any question, our most precious resource. Unless we give them our attention the cost will be high in lost potential for society, in human misery, and in tax dollars.

All we need is the will and one simple thing, one simple, terribly difficult thing. Fortunately this group knows it well and knows how to do it — it is called leadership. It is the leadership to go out there and help people who do care about kids, but don't know what you know about them, who don't know how to address their needs but want to do the right thing.

I am here tonight not only to thank you for your efforts but to appeal to you to redouble them. Be the leaders of California on behalf of all kids because you know what children's rich potential can be at its very best and you know that every child should be developed to the highest level that child can reach. That's what gifted education, as I've known it, has always been about – all children reaching their potential, and our most gifted children being understood and helped to go to their highest levels. Let us together go out and make that message understood, not just within our education community but by every single Californian.

The message is clearly ready to be told. And this group has the authority, because you know what the California of tomorrow will be. It's in your classrooms today.

Maureen DiMarco is Secretary of Child Development and Education for the State of California

Around and Through Test Scores: Discovering the Gifted Hispanic Student

by Carol Kaylor

Several years ago, an administrator I know was sitting next to a GATE consultant during an awards ceremony. The consultant was both knowledgeable and well-known in the field of gifted education. As the evening progressed, the administrator had an opportunity to share the difficulty our school district was having in identifying Hispanic gifted children. In response to the conversation, the consultant commented, "...maybe they're not out there." The message, at best, was certainly confusing, as State Department regulations have, for years, justifiably been prodding districts to identify all ethnic groups to within 10% of their district population. Yet, in an informal moment, the consultant was suggesting perhaps, that "they" (Hispanic gifted students) simply may not exist in as high a number as other groups.

Researchers who look at gifted identification issues espouse a more fluid, less test-oriented process for culturally diverse children, but the 'hows' are often subjective and, certainly, inexact. What I am sharing here is our school district's metamorphosis from a traditional GATE identification process to a more experimental, open-ended approach that at times appears to have few clear boundaries.

Over 80% of the students in Baldwin Park Unified School District are Hispanic. During the 1987-88 school year, the identified Hispanic GATE percentage ranged from 32-36% of the total GATE population – a far cry from the State Department's ±10% guidelines. Our district was not ignoring the discrepancy, in fact, we were continually searching for alternative test methods which might help us discover the Hispanic gifted child.

Prior to the implementation of the *Alternate Identification of Gifted, (AIGS)* process, Baldwin Park used (and for some students, continues to use) a multidimensional (MD) system that identified primarily English dominant high-achieving and intellectually gifted students. Although we included criteria in such areas as creativity and leadership, we found that at the K-6 grade levels, the criteria were difficult to define, strongly dependent on descriptive teacher observations, and in fact, were seldom used. The benefits were in the comfort and safety of numbers, i.e. the student scored at or above 130 on an IQ assessment, and/or was achieving at or above the 95th percentile on district achievement tests (i.e. *California Test of Basic Skills, CTBS, or Spanish Assessment of Basic Skills, SABE*). If objectivity were a quality-indicator for a GATE program review, we would clearly have received a commendation.

Some modifications for the non-English dominant students were made. For instance, we accepted IQ scores from the Leiter and the Performance Scale of the WISC. We also actively sought out other non-verbal test instruments, but often found them too time-consuming for screening purposes, or not sufficiently correlated with IQ tests.

What we soon recognized was that for a student to even be referred for GATE consideration, he/she had to be performing at a very high academic level just to get the teacher's attention. Also, it was easier to notice an above-level student three years ago when the reading and mathematics programs more easily accommodated cluster-grouping than does the current emphasis on literature reading. (This observation is not meant to be disparaging of literature-based reading. It simply makes it more difficult to document accelerated abilities.) We also have yet to discover a consistently reliable nonverbal IQ screening instrument, thus, our GATE staff considered two possibilities. One, either the GATE consultant was right – gifted Hispanic students were not "out there," or at least, they might not be in our district in substantially high numbers; or two, ***our MD system was simply not sensitive to discovering Spanish-speaking or other bilingual children.***

Eventually, after a review of the literature and search of other school districts who shared similar population patterns, we turned to Montebello Unified School District and began to gather information about their *Bilingual Identification Project*. In September, 1988, we introduced the *Alternative Identification of Gifted Students (AIGS)* plan to four of our elementary

schools. The process is now used in twelve elementary schools, with a newly built school to be added in the Fall of 1992. We had originally entitled the plan *GIBS – Gifted Identification of Bilingual Students*, but a principal appropriately challenged us on the name. Although the guidelines are designed to assist us in discovering Hispanic students, any qualified student regardless of ethnicity, who meets the criteria, is accepted.

How AIGS Works

AIGS is used in grades 2, 3, and 4. (The multidimensional criteria continue to be used for students in other grades.) Phase one, student nominations, differs significantly from the MD process. While most MD/GATE referrals are initiated by the classroom teacher, AIGS nominations are generated by peers, teachers, and aides responding to a series of questions such as: "Who learns quickly, ...is original, imaginative, and creative, ...knows a lot, ...consistently earns high marks, ...asks questions that really make you think?" The questions are designed to identify student characteristics in intellectual, high achievement, and creativity areas, and based on the number of nominations a student receives, an *initial* nomination list is generated.

Phase two includes a teacher inventory and review of cumulative records for each nominated student. Based on the strength of the inventory results, a *final*, and smaller student nomination list is submitted. The third phase includes a parent interview, and during the months of March and April, students are conferenced for possible GATE placement.

Placement Criteria

For those of us who share a need to have sets of objective scores to determine if a student is gifted or not, the AIGS placement conferences are a completely different experience. The placement committee consists of at least two GATE staff members and the teacher. Ideally, we encourage the principal, resource teacher, and a psychologist to attend.

There have been times when we placed a student in high achievement and/or creativity with no objective data whatsoever, depending on teacher descriptions, cumulative history, and student work samples. If, however, a student was nominated in the intellectual category, and the descriptive behaviors were strong enough to suggest he/she would do well on an IQ test, we referred the student to the psychologist for testing.

Who Have We Found?

During the first year, we identified approximately 35 students, and nearly half of them scored in the gifted or highly gifted range on an IQ test. Currently, of the 96 identified AIGS students, approximately one-third qualify in the intellectual area.

What is most hopeful, is that we found intellectually gifted students who were not particularly high achievers based upon standardized achievement tests, and I am convinced most of these students would not have been identified without using AIGS. Contrary to our preconceived notions about intellectually gifted, non-English dominant students, they often do not demonstrate a high-achieving profile, even in the less language-related areas such as math. These students also are not necessarily transitioning into English reading at a faster pace than their non-intellectually gifted peers.

We found students who had percentile scores far below 40 on the SABE, yet tested out very well on an IQ test. In one instance during the AIGS placement conference, Melissa*, a second grade student, was described as having taught herself cursive writing and was writing pages of poetry during school recesses. Her parents gave detailed examples of her sensitivity to specific family issues. She scored 175 on the Leiter, and while many psychologists may argue that the Leiter scores are poorly normed, she could lose a standard deviation or two and still be intellectually gifted. Her friend, also with lower than average CTBS and SABE scores, was identified as intellectually gifted. Another young man, Michael*, in the fourth grade, scored 138 on the Leiter and 142 on the verbal scale of the WISC, and was found to have a significant writing disability. He might easily have been overlooked using our traditional system.

After three years, 14% of the AIGS intellectually gifted students do have achievement test scores above the 90th percentile, while 70% continue to score below the 80th percentile in reading and language areas. Additionally, 45% of the AIGS students who were initially identified in the high achievement area without supportive scores, are now showing CTBS scores at or above the 90th percentile range.

On the questionable side are approximately 20% of the AIGS identified students who were placed without any test score validation (high achievement or IQ), and after a year or more in the program continue to show little test score gains and struggle with the GATE curriculum.

An Attempt at An Honest Evaluation - and Related Thoughts

The percentages listed in the table note some of the significant differences between the MD and AIGS identified students.

	MD	AIGS
Identified in IQ	94%	31%
IQ and +90%ile CTBS/SABE	49%	14%
IQ/below 80%ile reading/lang.(CTBS/SABE)	16%	71%
High Achievement only	5%	45%
Creativity only	0%	3%
Creativity + High Achievement	0%	19%
Creativity + IQ	1%	3%

Table comparing students identified by different criteria.

Creativity continues to be an area not easily addressed. While some research suggests that highly creative students function in the above-average, but not gifted intellectual range, we are still unclear about how to qualify and quantify those characteristics. We remain hesitant to identify in the area of creativity only, and we look for substantiating achievement and/or intellectual strengths.

Not surprisingly, the numbers above tell us that the AIGS students frequently have curricular and social-affective needs which are different than their MD counterparts. Because our district continues to use a pull-out service model for the elementary grades (supplementing the regular program through periodic teacher inservicing), we have had an excellent opportunity to evaluate the skills and needs of the AIGS students.

Initially, we had thought we would expose the AIGS students to the regular GATE program where possible, and that, in time, the students would eventually show us if and how we needed to modify our curriculum. We also did not want to unnecessarily separate the AIGS students and thus engage in a type of GATE-tracking. Since the GATE curriculum is somewhat structured, studying one topic in-depth each semester, and ending with the development of several student-team products, it was our intention that if an AIGS student were predominantly Spanish speaking, we would assist the regular teacher with extending and enriching the bilingual curriculum until the student's English language skills were sufficient to transition him/her into the GATE program. To our surprise, this happened only once. Regular teachers often reported that even the LEP students had sufficient social English language skills to manage on a limited basis in the GATE Center.

But there are emerging concerns. While most of the AIGS students function adequately in the Center, the GATE teachers have altered both the pacing and level of complexity of their instruction. The student projects have also been simplified. While the AIGS students' social use of English is usually sufficient for being immersed in a part-time English-only setting, their academic English language skills are not adequately developed to make a fair comparison of their overall abilities when compared to their MD peers. Another issue is that our GATE staff consists of English-only speaking personnel without specific bilingual training and background. Thus, we too suffer from a cultural paucity of knowledge to make a clear judgement about these students' learning abilities.

And so, we are left with two major questions.

The most obvious is, in relying less on test scores and more on classroom observations and work samples, are we really identifying *truly gifted students*? I readily admit a comfort that the safety of scores often provides in identifying the gifted, but I am also convinced that a strict adherence to scores often misses the highly intellectually gifted or creative child. Such a system would easily have missed Melissa and her friend, and because of Michael's disability, it likely would have missed him as well.

Then there are students on whom I would venture to say that the jury is still out. These are the students who, at the time of their conference, were identified as showing characteristics above their classmates, had a variety of impressive work samples, but did not have substantiating test scores. As I indicated earlier, these students fall into two groups. One group is beginning to show academic progress

on standardized achievement tests, while the other is not. I do not yet believe we have enough information on these students' skills and language abilities to judge if they will continue to maintain a status that is significantly above their chronological peers or not.

It is these students that pose for us a second question: how do we serve them? How do we best nurture the skills and abilities they bring to us, and how might we stimulate and expand their intellectual, academic, and social boundaries? It is our hope that through AIGS, we will have successfully intervened in their education at a critical point, and that our program will, in cooperation with the bilingual and regular programs, assist these students in removing any limiting attitudes or skill areas that might hinder their adult choices, opportunities, and contributions. Just as with the students who bear a score which documents their level and area of giftedness, we hope to stretch and explore these students' capabilities, pose new and interesting problems, and create expressive new avenues for their ideas.

For those of you contemplating navigating through the uncharted waters of discovering culturally diverse students without the use of a common compass (i.e., test scores), I will share what we are learning about our decision-making skills.

- We are more cautious than we initially were. We are less apt to "oooh" and "aaah" over one or two brilliant student work samples. If we have questions about a student's work being above grade level, we ask someone who knows more about the regular classroom than we do. In our district that may mean the school's resource teacher who is familiar with the level of the classes on campus; forwarding samples to our bilingual department; or getting the opinion(s) of our district elementary curriculum specialists.
- If the student is predominately English-speaking, has had a fairly uninterrupted educational history, and has been nominated in high achievement, we do pay attention to achievement test scores.
- More than one teacher needs to say the student has an exceptional skill or ability. We look carefully at report cards and previous comments.
- If a student is creative, we ask for a half-dozen examples. One great story or invention does not mean he or she is gifted.
- Because we run a pull-out program, we will not place the student in an all-regular program unless the parent requests it. Initially, when we found an AIGS student struggling in the GATE Center, we attempted to meet with parents and explain that the regular classroom with GATE support would best meet the student's need at that time. We found that no matter how it is said, kids and parents interpret those words as 'no longer gifted,' and it wreaks havoc on the child's self-esteem. We remain honest in our evaluations of a student's work in the GATE Center, but will not ask that the child be removed.
- We are still looking for a good 10-15 minute non-verbal IQ screening instrument to use before referring a student for IQ testing. (So far we've tried the *MAT*, Perceptual-Speed Cluster of the *Woodcock-Johnson*, and *SAGES*. The first two have had no significant correlation to an IQ test, and the latter was too lengthy.) If your district finds one, call us!
- We have consistently sought feedback from everyone involved. An evaluation form is used annually and we have modified the steps based on the feedback.
- We still remind staff that the gifted population lies at the upper 2-3 % of the bell curve.

AIGS has been a labor-intensive process. It has demanded far more time than we had originally thought, yet regular teachers are far more involved in the identification process than ever before. It has increased our proportion of identified Hispanic students from 32% to 46% in three years, but AIGS has not always been easy. There still remains a split between regular teachers who view above-average skills as gifted, and GATE teachers who breathe easier when a tangible score can be produced. It does, however, offer flexibility, which I believe is an absolute necessity in discovering not only the culturally diverse child, but the nonachieving, highly intellectual child as well.

**Student names have been changed.*

Carol Kaylor is a Specialist with Special Education/ GATE for the Baldwin Park USD. Her address is 3699 North Holly, Baldwin Park, CA 91706.

The Gifted Bilingual Child: Two Needs, One Goal

by Victoria Siegel Steinitz and Joanne Lopez

Where inability to speak and understand the English language excludes national-origin minority groups from effective participation in the educational programs offered by a school district, the district must take affirmation steps to rectify the language deficiency in order to open its instructional program to these students.

Justice William O. Douglas in the opinion delivered for the United States Supreme Court in the case of Lau vs Nichols, 414 u.s. 563.

Justice Douglas identified the rights of language minority students to participate fully in a complete and appropriate educational program. School districts across the nation responded by implementing a variety of bilingual educational models designed to ensure that the students progress academically as they gain proficiency in the English language.

The question which comes to mind, however, is "Have we addressed the educational needs of language minority Gifted/Talented students?" It would be fair to say that they're a neglected minority with few, if any, programs designed to meet their needs.

Euclid Avenue Gifted/High Ability Bilingual Magnet in the Los Angeles Unified School District was conceived with this in mind. The District, Board Members, parents, and teachers recognized the need to create a quality program that could incorporate both bilingual and Gifted/Talented philosophies and methodologies. The magnet was to open in 1989-90 with four classes of Limited English Proficiency (LEP) students.

Magnet schools in the LAUSD traditionally have waiting lists, but the assumption that such a list would be useful here proved false. The waiting list reflected the lack of the LEP children on the rolls of the identified gifted. It was therefore necessary to create a tool to evaluate the potential of the applicants to the magnet. The combined efforts of the LAUSD Gifted/Talented office, the school site administrator and magnet coordinator, under the guidance of Dr. Sandra Kaplan, produced an informal instrument wherein applicants could be assessed in the areas of flexibility of thought, verbal ability and patterning. (See *Communicator*, Volume XII, Number 2, April, 1991). The assessment was conducted in the language of the child, with observers using a checklist approach to recording data.

The informal assessment tool yielded accurate findings, as many of the students have since been identified gifted by standard measurement tools. It had the added advantage of bringing in the high ability child who might not qualify using a standard method of identification. Once the classes were in place, the teachers set out to structure a program that met the goals of bilingual education while further nurturing and challenging the gifted/high ability child. The Thematic Approach, utilizing generalizations to drive the inquiry, became the focal point for curriculum development.

The second (1990-91) and third (1991-92) years brought an expansion of the magnet, which now serves twelve classes: seven classes of LEP students and five classes of Fluent English Proficiency (FEP) and English only (EO) students. Students find themselves in a challenging academic atmosphere where their needs as gifted/high ability students are met. They also find that their language needs are met, providing them with a program that enhances their native language or develops a new second language.

The Universal Theme and the generalizations help the teachers differentiate the curriculum for the Gifted/High Ability child. It provides the students an opportunity in either language to see relationships, draw conclusions, and develop insights. While ensuring the high level of thinking so integral to a quality gifted program, it is not dependent on fluency in English.

In addition to the core curriculum, Gifted/High Ability students at Euclid Magnet School participate in a modified form of mixing for second language instruction. All students are assessed in the second language (English or Spanish), then they are grouped by fluency levels within the primary, middle, and upper grades. This group is instructed in English or

Spanish as a second language. For the beginners the focus is at a conversational level of listening and speaking. Reading and writing is added for the intermediate group. Vocabulary and language skills are enriched for the advanced students by weaving literature with generalizations of the Universal Theme. The ultimate goal of the second language component of the Bilingual/Gifted program is not only to provide second language opportunities for Limited English and Limited Spanish speakers, but also to provide advanced and accelerated language development in both Spanish and English.

A critical component of the second language acquisition aspect of the program is the teaching of art, music, physical education, and drama in the second language. Again, students are grouped by fluency in the second language. The teachers use the sheltered approach for instruction in these subjects. Concepts are easily investigated using demonstrations, charts, diagrams, graphs, or a hand-on approach. Vocabulary in the language is repeated and reinforced in this setting, providing experience and language in context. It is necessary to have teachers fluent in both English and Spanish in order to have a successful bilingual program. The Euclid Magnet staff consists of seven teachers with Bilingual Certificates of Competence, three teachers with Language Development Specialist Certificates, and two English only. Besides the language aspect, the staff has expertise in the instruction of Gifted/Talented and High Ability children.

The children who are Limited English students begin language arts in Spanish. By 3rd or 4th grade most students are ready to transition into English language arts. The Spanish language arts is maintained so that the child continues and accelerates language development in the primary language.

Eventually, students such as those in Mrs. Curiel's 5th-6th grade class will be considered "mainstream" pupils and redesignated to Fluent English Proficient. These students were observed one morning debating the Year Round School "pros" and "cons." The debaters moved in and out of English and Spanish with ease, fluidity, expertise, and comfort. This same group of students is then able to compare, contrast, and analyze using both of their languages, bringing a broader view to the Universal Theme (this year it is Systems) and their own lives.

Victoria Siegel Steinitz and Joanne Lopez may be reached at Euclid Avenue School, 806 Euclid Ave., Los Angeles, CA 90023.

This brings us to self-esteem. The Spanish-speaking child at the Euclid Gifted-High Ability Magnet School sees his/her primary language in a new light. It is a rich literary language as well as an academic language. Knowledge of Spanish is enriching – academically, socially, and culturally. The Hispanic student who is either non-verbal or non-literate in Spanish becomes aware of, and proud of, the importance of knowledge of Spanish – especially in Southern California.

The LEP child who is a High Ability/Gifted child and in a regular bilingual program has a need and a right to a differentiated curriculum. Take the case of Juan. His reputation as a difficult, disruptive child was school-wide by the time he was a second grader. One teacher recognized many of his characteristics as those of a high-ability child. The Magnet opened, his parent applied, and Juan was able to begin a program that was challenging, exciting, and accelerated. He was in a setting that stimulated his creativity and his academic growth while at the same time provided for his language needs. Today he is an "Identified Gifted Student" – articulate in both English and Spanish. Without a bilingual Gifted/High Ability class he could have been another drop-out statistic.

It is well to remember that Juan is but one example. He typifies the language minority student and demonstrates the benefits of such a program. We cannot forget that the language minority student has the ability and the right to participate in an appropriate Gifted/Talented program. School districts that are sensitive to meeting the needs of students as outlined in the court decision have to expand the vision to include language minority students that are gifted or demonstrate high ability. Their "gift" should not be ignored while they gain fluency in the English language. To do so fails to provide them with an appropriate educational program. As advocates for the development of Gifted/Talented programs within the state of California we need to be a voice for the language minority student and insist on the expansion of the bilingual Gifted/Talented setting as an option for providing an appropriately challenging and enriching program. In this age of changing demographics, it makes sense for the proponents of quality Gifted/Talented programs to ensure that these programs take in our largest untapped minority – the language minority child.

Serving the Culturally Diverse

by Anne Bensen

Cultural diversity is inherent in the history of Oxnard. The district has long had a large Hispanic population, which today exceeds seventy percent. Fifty percent of these students are limited or non-English speaking.

It was obvious that this district should establish a bilingual GATE program. The search for information and program planning began five years ago and led to the inception of a bilingual GATE program for the 1988-89 school year.

What We Did

A task force of interested individuals was established to design an appropriate program. Sub-committees were established to research identification of our Spanish-speaking students, curriculum, teacher selection, staff development, parent education, and instructional materials. A successful, self-contained GATE program had been in place for several years and the addition of bilingual self-contained GATE classrooms was an easy and popular decision. The 1988-89 school year opened with a grade two-three bilingual GATE class. Since then two more classes have been added. We now serve limited or non-English speaking students in grades two through five in self-contained classes and a first grade cluster in a one-two combination class. These first graders will enter the self-contained second grade bilingual GATE class next year.

Many success stories have begun during the past few years. The opportunities for these gifted Spanish-speaking students to flourish in an academically rich environment are both appropriate and exciting.

What We Have Learned

We have made a number of adaptations in order to assure that this population is reached and served.

- It was necessary to adapt and modify the GATE identification process to include testing in Spanish and in some cases to adapt tests to accommodate the student's background, experiences, and culture. For example, there are some students who are in transition regarding language. They lose some of their skill in Spanish as they learn and function in English. Tests may be given with varying degrees of translation to accommodate the current language status.
- Parent education has been essential to the success of our bilingual GATE program. We have found it very helpful to hold an orientation meeting for parents of Hispanic students who have been nominated for the GATE program. This meeting is conducted in Spanish by one of our bilingual GATE teachers. The meeting is held on two consecutive Saturdays in the spring. Parents of nominated students are invited to bring their children to one of our schools on either Saturday. Children are tested while parents attend the meeting. An overview of the identification procedure and the program is presented. Time for questions is scheduled. Originally, the meeting was scheduled for thirty to forty minutes. The interest, enthusiasm, and questions of parents has extended this meeting to more than ninety minutes.
- Meetings conducted in Spanish have been offered to parents to explain the program fully and to allow parents to experience various aspects of the curriculum. Demonstrations in which parents work alongside their children in a particular area of the curriculum not only provide understanding, but develop parent confidence and support for the program.
- It has been observed that our Hispanic students come to school with more limited experience and skill in problem solving and critical thinking than some of the other students. Opportunities are provided for these areas to be developed. A parent meeting is held to discuss creativity and to allow parents to experiment with some activities involving the components of creativity: fluency, flexibility, originality, and elaboration.

We are in our fourth year of implementing this bilingual GATE program and serving our gifted Spanish-speaking students. Each year brings modifications based on the needs which emerge. The program is constantly evolving, blending the gifts and talents of the students, the staff, and the parents.

Anne Bensen is the GATE Coordinator in Oxnard School District. She can be reached at 1051 South A Street, Oxnard, CA 93030.

Junior Great Books in the Multicultural Classroom

by Barbara J. Knecht

Many parents and educators are familiar with Junior Great Books as a discussion-based literature program for above-average and gifted students. The program's focus on excellent stories, together with the shared inquiry method of reading and discussion, makes Junior Great Books especially effective in developing students' higher-level reading and thinking skills.

In Junior Great Books, students read classic and modern literature from cultures around the world – from the Far East, India, Africa, the Middle East, Latin America, Europe, and, of course, the United States. And with the new 1992 revision, students will encounter the voices of such ethnically diverse authors as Gary Soto, Gish Jen, Langston Hughes, Andrea Lee, Tomas Rivera, An Tan, Abiosch Nicol, and Maya Angelou.

While the range of writers in the program will appeal to teachers who work with multicultural groups of gifted students, the ways in which the program benefits these students reaches far beyond such cultural definitions. In Junior Great Books, all students benefit not only from the *kind* of literature they read in the program, but also by what they *do* with their reading experience as they participate in shared inquiry.

Shared inquiry gives students the means and the opportunity to explore a story's complex issues in an environment of open and thoughtful exchange. The shared inquiry method of learning is unique in that students are asked to focus exclusively on interpretive questions – questions that have no single "right" answer, but instead confront genuine problems of meaning raised by the stories themselves. In a shared inquiry discussion, the leader (a teacher or parent volunteer) turns to students for insight into the meaning of a story, and thereby communicates a genuine respect for their opinions and ideas. In turn, students are enabled to connect personally with literature as they pursue issues that they find important.

For example, when working with "The Fire on the Mountain" in the Junior Great Books series for third grade, students approach such issues as friendship, courage, hope, and justice. The story takes place in Ethiopia in the city of Addis Ababa, and tells of a young man named Arha who is servant to a rich merchant, Haptom Hasei. The bored Haptom has made a bet with Arha that he cannot spend a night at the top of desolate Mount Sululta without food, water, clothing, or fire. If Arha can survive the brutal cold, Haptom will give him ten acres of farmland, a house, and cattle – the freedom to till his own soil. The determined Arha does survive the dreadful night by watching the light of a fire tended by a friend on a distant mountain. But Haptom declares that Arha does not fulfill the conditions of their bet since he was to be without fire, and "it was only the fire that saved you." He refuses to give Arha his freedom until another rich man, a respected elder, helps Haptom see where justice lies.

In a shared inquiry discussion of "The Fire on the Mountain," the leader begins by asking students to consider a comprehensive interpretive question, such as *How does watching the distant fire help keep Arha alive? Why does Haptom bet with Arha, who has no money? Why can't Haptom understand Arha's plight until he himself suffers? Why does Arha risk his life to earn his freedom?* Interpretive questions such as these cannot be answered simply; the story does not say why things happen the way they do. Readers must figure out for themselves a character's motives, or the reasons behind particular events.

The leader in shared inquiry only asks questions, and never provides ideas or offers his or her own opinions. Through thoughtful follow-up questions, he or she helps students develop their own interpretations. One student might argue that it was not the fire that saved Arha, but his friendship with the wise old man of the tribe who tends the fire on the mountain. Watching this fire gives Arha the strength and courage he needs to succeed. Another student might say that by concentrating on the fire rather than his own misery, Arha could keep in mind his goal of freedom – something Haptom could not understand. Each of these interpretations is strong and distinct, and builds on students' personal understanding of the text.

Evocative stories and interpretive ques-

Barbara J. Knecht is an editor at the Great Books Foundation, an independent nonprofit educational organization. The Foundation offers training in the shared inquiry method to prepare teachers to lead the Junior Great Books Curriculum. For more information contact the Foundation at 35 E. Wacker Drive, Suite 2300, Chicago, Illinois, 60601-2298; or call 1-800-222-5870.

The Junior Great Books Curriculum Activities

for
"The Fire on the Mountain"
(Grade 3)

Text Opener:
Before reading the story, students discuss questions which encourage them to think about how such positive feelings as friendship, courage, and hope are associated with the image of fire.

First Reading:
Students follow along in their books as their teacher reads aloud.

Sharing Questions:
Students write down or share orally a question they have about the story.

Second Reading with Directed Notes:
During their second reading students mark places in their books where they think Arha or Haptom *feels close* or *does not feel close* to other people. As students share the reasons behind their individual notes, they compare the different ways in which these characters feel about themselves and others, and gain insight into why Haptom denies Arha the land.

Interpreting Words:
Students concentrate on the literal and metaphorical meaning of the word "nourishment" as it appears in the story. They contrast the ways in which both Arha and Haptom are nourished by food and water, by friendship, and by hopes and dreams.

Shared Inquiry Discussion:
Students address a substantial interpretive question about the story. Because the leader has genuine curiosity about the question, he or she can work as a partner with students in joint inquiry and is able to see the story in new ways.

Writing After Discussion:
Students consolidate their thinking about the story through a personal essay. They write about a time when they, like Arha, wanted something very much, and what they were willing to do to obtain it. Children draw upon experience that parallels Arha's – when they had a strong desire for something not immediately attainable, or felt helpless when faced with an injustice inflicted by more powerful adults. Sharing ideas before writing, and after their essays are completed, points up both the unity – and diversity – in the human experience.

tions – the hallmark of Junior Great Books and the shared inquiry method – enable students to call upon their powers of critical thinking in order to reach a deeper understanding of literature. Because no two people will read or interpret a story in exactly the same way, strong diversity among students emerges as a plus rather than as a hindrance or an obstacle to understanding. Students are not only enriched by the variety of compelling stories found throughout Junior Great Books, but also – and just as importantly – by the experience of working together to formulate their ideas. Shared inquiry makes it possible for all students to build their own interpretations in a thoughtful way, to value different points of view, and to make decisions that embody their understanding of what they read.

The Junior Great Books Curriculum for grades K-12 is designed to give teachers a practical and thorough routine for helping students become stronger readers, writers and thinkers. Each curriculum unit consists of text-based, interpretive activities that are story specific. *Text Openers* summon students' prior knowledge to help them connect with a story's themes; *Sharing Questions* taps into students' curiosity about a story and cultivates their ability to "read actively"; *Directed Notes* motivates students' second reading by guiding them in using their responses as the starting point for interpretation; *Interpreting Words* enables students to explore words, both new and familiar, that are important to understanding the story; *Shared Inquiry Discussion* builds upon the groundwork laid by the previous activities and involves students in a sustained consideration of a basic problem of meaning in the selection; *Writing After Discussion* gives students the opportunity to consolidate their thinking through the composition of original stories and essays.

What makes the Curriculum unique is the consistent focus on interpretation. The activities not only enable students to better appreciate and understand each selection, but also help them revise and build on each other's ideas over the course of several days. As students work together on the stories, they see how diversity is an aspect of learning that is to be respected and embraced, not feared and rejected. It is this attitude which, over time, fosters the kind of understanding that is revealed not only in the forum of shared inquiry, but also in the texture of students' everyday lives outside the classroom.

California Young Playwrights Contest

The eighth annual competition for young playwrights invites writers under the age of 19 to submit original scripts. Every writer with a script of more than ten pages will receive an individualized script evaluation letter, prepared by theatre professionals. Four to six writers will see their work staged. Winning playwrights will be invited to take part in every step of the production process, from auditions to post-performance forums with the audience.

Scripts may be about any subject and of any length. They must be typed, with pages numbered and bound. Include a brief cover letter with name, address, phone, birthdate, and biographical information. Entries must be postmarked by May 1, 1992 and mailed to Playwrights Project, P.O. Box 2068, San Diego, CA 92112.

The Playwrights Project has a number of interesting programs in addition to this script-writing contest. One which seems particularly appropriate to highlight in this issue of the *Communicator* is a 20-minute video called *Journeys of a Young Writer: A Conversation with Latina Playwright Josefina López*. During her seventeenth summer, full of anger at her parents and her East Los Angeles neighborhood, Josefina López wrote her first play, *Simply Maria, or the American Dream*. Telling her own story with imagination and biting wit, she took the first step toward becoming the theatre artist she yearned to be. Now 22, Ms. López is a professional playwright with a passionate desire to better the world. The video garnered an Emmy for its producers, Sarah Luft and Deborah Salzer, and the 1990 Gold Award (Children's Category) from the Corporation for Public Broadcasting.

The Playwrights Project conducts school programs and residencies of varying durations. There is also a cross-generational program which links elderly storytellers with youthful writers to produce stories and autobiographical pieces which are performed and videotaped. For more information on any of these programs contact Deborah Salzer at 619/232-6188.

Culturally Diverse and Going Places in Parlier

by Lorraine Fort

GATE students in the Parlier Unified School District in the San Joaquin Valley are involved in two exciting programs to extend their horizons. Martin Mares, the district's first GATE program coordinator, believes that leadership development is the cornerstone for GATE student participation in the 'larger world'.

Our population of Hispanic students – 99.6% – in Parlier gives us a unique challenge – and an opportunity! Our GATE role models must be the best – they must include the 'cream of the adult crop.' We are anxious to have our children meet and hear from those who are premier performers in business, publishing, communications, education, science, and government. Some of these people are Hispanic; our young 'leaders' must see their cultural heritage and their future at work.

Parlier students from Martinez Junior High School have gone willingly to seminars on Saturdays as part of the school's GATE program. Motivational speakers from throughout the Valley are asked to come and speak to the students about current topics of study. The featured speaker at the first seminar was Dr. Barbara Burch, Associate Dean of the School of Education and Humanities at California State University, Fresno. She spoke on communication, advising the students to aspire to excellence, believe in themselves, choose a focus, and demonstrate competence, determination, and dedication. Other speakers at the Saturday seminars have included a local high school debate coach, City Council members, TV producers, agricultural specialists, and SB-65 Migrant Counselors.

The Saturday program has been so successful that there are plans to expand it; and an additional goal has developed as a continuing dream – a mentoring project for GATE girls at the junior high level which will be sponsored in tandem by the school district and a local women's organization.

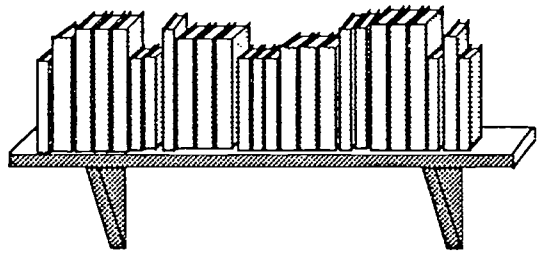
Parlier also has its sights set on Harvard. "Coordinating the Harvard Tomorrow project is really a labor of love," according to Martin Mares. "This opportunity is unbelievable – a real jewel." Harvard Tomorrow is an innovative program which will give Parlier students the chance to visit the Harvard campus, learn about the university and see the East Coast. Five to eight students will be selected and travel to Cambridge in April. They will be shown the campus, learn about admission standards and financial aid, meet with RAZA, the Harvard Hispanic students' organization, experience first hand what life is like at a major university, and have a chance to attend classes. They are expected to keep a journal of their trip and to report to the local school board and classes at their high school.

Harvard officials and Parlier educators and civic leaders alike are enthusiastic about the project and its aims in stretching horizons for these students.

For information about the Parlier Saturday Seminars contact Elsa Leal DeWitt, and for information about Harvard Tomorrow contact Martin Mares, both at Parlier Unified School District – 209/646-2731.

Lorraine Fort is the Public Relations Chair for the CAG Board and has been working with several districts to increase public awareness and support for their GATE programs.

BOOK REVIEW



Career Choices

by Mindy Bingham
Reviewed by Pennie Saletta

This is a multiple book package of materials for teaching a career awareness program. The materials are designed primarily for high school students, but would work very well in a gifted junior high class.

Mindy Bingham is well known for her other "choices" books for both boys and girls, but this set on career choices is equally beneficial to both groups. There are four distinct books in the set. *Career Choices* is the basic text, and all you really need if you have a limited budget. The text is well written, entertaining, and powerful in its ability to make a point. Great discussions can be generated from each section of this material. It is laid out in such a way that students evaluate themselves, their likes, needs, desires, and goals, leading up to decision making and examination of specific career choices. The exercises are both fun and thought provoking, but require students to have a consumable workbook. The *Workbook* is expensive, but a very useful addition to the text.

Career Choices also come with an *Instructors and Counselors Guide* which gives specific suggestions for using the text and workbook materials and some activities which can parallel these lessons.

The fourth part of the series is a delightful anthology of literary works titled *Possibilities*. This is a terrific anthology in its own right, grouping many well known and provocative pieces together in the interdisciplinary study of careers and life goals. The activities suggested at the end of each selection relate to specific portions of the text and workbook activities. There are also language arts curriculum ideas and suggested activities for extension of the ideas presented in the text.

Career Choices is an excellent resource for implementing a career awareness curriculum within an existing course of study, or setting up a separate course of study. Students respond to the activities with curiosity and enthusiasm. The selections in the anthology would be an appropriate addition to any language arts class and would facilitate the integration of the concept of careers into language arts. This reviewer was favorably impressed with the entire series.

GATE and ESL Articulation Comes Alive at the Renaissance Faire!

by Nancy Moses

History came to life for students at Irvine's Vanado Middle School in March when over 100 students presented the third annual GATE/ESL Renaissance Faire. The event was held on "Ye Olde Basketball Courts," where parents, students, and the public had an opportunity to shop at a variety of stalls, ranging from fruit vendors to sellers of fresh-baked pies. They could even arrange for a foe's disgrace in the stocks.

The Renaissance occurred all over the world at different times, and the incorporation of both GATE and ESL students enhanced the international flavor of the event. The majority of the ESL students, who derive from Japanese and Middle Eastern cultures, contributed their own foods and traditions.

Parents and teachers assisted with planning, costume construction, and supervision, but the event was staged by seventh and eighth graders masquerading as Renaissance people, including Shakespearean characters, Leonardo da Vinci, Galileo, Pope Leo X, Bach, Henry VIII, Martin Luther, and Anne Boleyn, as well as townsfolk, jugglers, merchants, beggars, singers, and dancers.

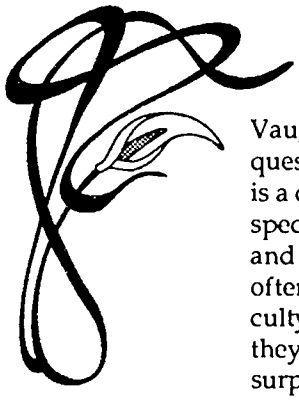
Special events included excerpts from Shakespeare's As You Like It, The Merchant of Venice, Romeo and Juliet, Hamlet, and Julius Caesar. There were fencing exhibitions, debates between historical figures, and the "beheading" of Anne Boleyn. A fashion show featured the proper attire for royalty as well as the usual rags for wretched "pennystinkers."

Food booths offered barbecued chicken, drinks, tarts, and cinnamon rolls, but not pizza or hamburgers. They stayed true to their historical time frame.

Nancy Moses is a GATE parent in Irvine USD. She can be reached at 714/857-9245

PARENT TO PARENT

by Elizabeth Kendall Mayhew



This column is for parents. Please share your feelings and questions, ideas and suggestions. Call, write, or fax. This is a place to talk, ask questions, and explore issues relating to you and your children. You can contribute articles, or you can request that an article relating to a particular area or issue be researched and written. For inquiries or to submit material for this column, please contact Elizabeth Kendall Mayhew, 1265 Bonnie Brae St., Hermosa Beach, CA 90254, 310/318-2368 or Fax 310/372-1136.

Looking for article ideas, I asked Dr. Sheila Vaughan if she would meet with me to discuss questions parents ask most often. Dr. Vaughan is a clinical and educational psychologist who specializes in issues concerning gifted children and families. She said that the problem most often mentioned to her by parents is the difficulty they have in finding friends with whom they can be open about their gifted child. I was surprised at the memories her statement evoked in me. The first and one of the most difficult problems I encountered with having a gifted child was when I tried to relate to other parents.

My own daughter is almost six. She has been in a private school for gifted children since September. Now I'm finding other parents with whom to share thoughts and feelings about my daughter. I can remark openly about their children, without caution. It's great to have a gifted environment where my child can be a "normal" child and I can be a "normal" proud mom. It hasn't always been that way.

When Kendall was eighteen months old, we visited the neighborhood toddler park frequently. One of her playground favorites was the pony swing set. One afternoon, as I lifted her toward a pony, she said, "Not red. I want to ride a blue pony." A nearby mom asked, "How old is she?"

"Eighteen months," I responded. "How old is yours? She has a beautiful smile."

"Twenty-two months," she answered, and confronted me with questions. "How long has she been talking like that? How does she know the colors?"

I responded simply and politely. Before I could extend our conversation, she took her child off the pony swing and walked away. Some other parents didn't say hello when they encountered us in the park again. It took several similar experiences before I realized that some people had a problem with my chatty child. I knew she was bright, but I didn't realize she was exceptionally bright. I wasn't yet familiar with the concept of "gifted" or the myriad issues and emotions that can be aroused by the presence of a gifted child.

I felt alone, was alone, because I had no understanding of my situation. I felt a conflict between the excitement surrounding my child's development and the concern that perhaps I should somehow minimize the strengths she innocently displayed.

Now, with two gifted children, ages 5 and 3, I have reached a new level of confidence in my parenting. I've been scorned by those who accuse me of pushing my children and stealing their childhoods. I've tangled with school administrators and endured critical glances from the corners of parks and libraries. In the process, I've learned some valuable lessons. I've learned how to trust my instincts and forgive my mistakes. I've learned how to create a safe world for my children's feelings and ideas. I've learned how to advocate for my children, whether it be in pursuit of a school situation or simply a very high doorbell on a scary Halloween. I've learned that my children learn self-respect from watching me. I have found some new friends with good hearts and valuable ideas.

If you are new to this "gifted game," I offer a few suggestions.

- Stand by your kids. They need you. They need you and you need friends who are self-confident enough to appreciate your children.
- When it comes to finding friends, Dr. Vaughan added that bright children are attracted to other bright children. She advises parents to let their children find their own friends. You will find that their friends' parents share similar experiences with you.
- Educate yourself. Learn about your gifted child.
- Join CAG or other organizations where you can meet people who share your situation.
- Be aware that some people will have trouble relating to you and your child. As my children get older, I realize that in a group or school situation, the parents who approach me are generally the ones who are most comfortable with my childrens' precociousness.

I feel it is most important to remember that your child, like all children, is an individual with individual strengths and weaknesses, needing unconditional parental acceptance and support.

CAG Position Statements: A Glossary

The California Association for the Gifted has developed this Glossary to:

- communicate and extend understanding of the many terms used to describe general and gifted education.
- establish common definitions of terms to facilitate better discussion and debate about the implications of these terms for gifted.
- enhance the ability of advocates for the gifted to be more conversant about the population they are serving.

This glossary has been designed to present information in this way:

TERM	Word or phrase
Definition	The accepted meaning of the term as it relates to both general and gifted education
Implications	The issues, concerns, and considerations of the term as it is applied specifically to gifted students and gifted education.

ABILITY GROUPING	Grouping students by need, interest, or ability. Groups can be formed and reformed to meet varied instructional purposes. All students need to participate in both homogeneous and heterogeneous grouping patterns. Ability grouping is NOT synonymous with "tracking." (See also Heterogeneous/ Homogeneous Grouping and Tracking.)	*CAG advocates the flexible grouping of gifted students. They need to be in groups with other gifted students for some part of their educational program. Ability grouping may take many forms beneficial to gifted learners.*
ACADEMIC EXCELLENCE	Expecting each student to work at maximum level toward a set of external standards as defined by state, district, and/or school. Learning and performing for each student should be at a challenge level commensurate with each student's skills and developed abilities.	*The standards of excellence and appropriate challenge for gifted learners should be defined by their abilities and needs, as well as the expectations held for them by experts in various fields, educators, parents, and the community.*
ACCELERATED LEARNING	Pacing students through the curriculum at a rate commensurate with their advanced ability, allowing them to go as far and as fast as they want to go.	*CAG supports the use of full or part-time acceleration as effective methods to meet the needs of gifted learners. Skipping grades and compacting the curriculum by eliminating content the student has already mastered are among a variety of methods which allow for expansion of curriculum for gifted students in a non-traditional pattern.*
ADVANCED PLACEMENT	A program in which a secondary student can gain college credit and/or advanced college placement. Advanced placement is obtained by successfully meeting criteria established by higher education institutions on a nationally given and scored Advanced Placement examination.	*CAG supports Advanced Placement opportunities as one method to meet the needs of gifted and other able learners.*

AFFECTIVE LEARNING	Incorporating into the curriculum opportunities for students to address values, attitudes, and appreciations of self and others.	*CAG supports the development of the whole child. In addition to academic opportunities, guidance services should be provided for the gifted to meet their psychological and social needs.*
AT-RISK	Students who may underachieve or who may drop out of school. Unmet economic, physical, emotional, linguistic and/or academic needs may inhibit a student's ability to learn or attend school.	*That a gifted student may also be an at-risk student is being recognized more widely. (See also Underachieving.)*
AUTHENTIC ASSESSMENT	Process of evaluating student learning using student products or performance instead of traditional standardized tests. It allows students to be evaluated with regard to their individuality and creativity.	*CAG supports authentic assessment practices for gifted students. (See also Portfolio Assessment, one method of authentic assessment.)*
CATEGORICAL PROGRAM	A special-purpose program funded with grants from the state and/or federal government. Funds from the grant must be spent for purposes (specific goals) defined in statutes by the state and/or federal government.	*Gifted are among the groups of children for whom special programs have been earmarked at both the state and federal level. Other categorical programs serve low-income families, the handicapped, and the limited English speaking. Some gifted students may be served by one or more of these other categorical programs.*
CLUSTER GROUPING	A method for organizing a heterogeneous classroom by assigning students with similar needs, interests, and/or abilities to the same classroom.	*As the percentage of gifted students in a heterogeneous classroom increases, cluster grouping becomes beneficial to the gifted. It provides for the gifted child to work during the academic day with other gifted students who share similar needs, interests, and abilities.*
COLLABORATIVE LEARNING	A teaching strategy whereby students are expected to share expertise and effort in order to create a common project/product.	*Gifted children need opportunities to share responses with other students of like abilities and/or interests in order to improve and extend their understandings and skills. (See also Cooperative Learning.)*
CONTENT/ PROCESS/ PRODUCT	The elements of curriculum. Content is the subject matter. Process is the skill included in the curriculum. Product is the output of learning or form of communication, such as writing, illustrating, performing, debating, etc.	*Gifted students need differentiated content, process, and product. For optimum learning for GATE students, the product should be flexible, the content must be extended in depth and complexity, and the processes should emphasize creativity, problem solving, and critical thinking.*
COOPERATIVE LEARNING	The practice of assigning a common task and/or project to a group of students with varying ability levels often reflecting the full range of student achievement and aptitude. The purpose of such learning is to prepare students to live in a democratic society; to help them understand group membership and group dynamics; and to allow them to practice both leadership and follower skills.	*CAG supports cooperative learning in some circumstances, but cautions against misuse of the process. Misuse of the process occurs when gifted children are assigned to help others learn rather than being allowed to advance at their own faster pace. (See also Collaborative Learning.)*

CORE CURRICULUM	The common knowledge and skills to be learned by all students of a particular grade as determined and specified by a local school district. The state frameworks provide guidance to a local district in this decision-making process.	*CAG believes gifted students must have opportunities that are differentiated from the core curriculum to meet their educational needs. A challenging curriculum for the gifted may require going beyond grade level expectations. CAG believes that appropriately differentiated opportunities for the gifted can enhance the educational experience for all students.*
CREATIVITY	The human attribute of constructive originality. It is the process of combining what exists into something new. The something new could be procedure, idea, or product relative to the individual. Creativity needs to be nurtured in the students to develop the abilities necessary to affect our society with new ideas and solutions to problems.	*Creativity is one of the identification and program categories designated by GATE law. Fostering creativity should be part of all GATE curricula.*
CRITICAL THINKING	The development of analytical thinking for purposes of decision-making. This includes using specific attitudes and skills such as analyzing arguments carefully, seeing others' points of view, and reaching sound conclusions.	*Curriculum for gifted must include opportunities to practice critical thinking in conjunction with subject matter acquisition and content mastery. (See also Content/Process/Product.)*
DIFFERENTIATION	Adapting the curriculum to meet the unique needs of learners by making modifications in complexity, depth, and pacing. It may include selecting, rather than covering all, the curriculum areas dependent on the individual needs of students.	*CAG believes that curriculum should be differentiated for all students and that in all classrooms there should be multiple paths for success. The major purpose of GATE differentiation is to challenge the advanced learner. Contemporary educational ideas, such as authentic assessment, collaborative learning, whole language, ungraded curriculum, or thematic interdisciplinary curriculum are not differentiated within themselves, but they can facilitate differentiation for the gifted.*
ELITIST	Advocating the selection and treatment of people as superior in some way and therefore favored.	*CAG believes that promoting challenging programs for gifted students should NOT be equated with elitism. CAG rejects the idea that providing differentiated learning experiences to gifted students is discriminatory, or that such experiences are a means of separating the gifted from, and/or valuing the gifted above, other types of students. Good gifted programs help students not only fulfill their academic potential, but help them appreciate the contributions and diversity of others.*

ENRICHMENT	Activities that supplement the core curriculum. Such activities are generally not specified in the curriculum and are selected by the teacher and/or students in a given classroom.	*CAG believes that enrichment opportunities such as field trips, special speakers or demonstrations, special projects, and community involvement, or enrichment materials such as computers, reference materials, literature books, and arts materials should be provided for ALL students. Funds from all categorical programs in California serving "targeted" groups of students, including School Improvement funds, may be used for these purposes. Such activities or material acquisitions do NOT constitute a gifted program or a differentiated curriculum. Enrichment opportunities for the gifted should involve students in interaction with new ideas and topics not ordinarily included in the core curriculum. The interaction should lead to a deeper understanding of the regular curriculum, with new knowledge emerging from the students' own creative efforts. (See also Core Curriculum.)*
EQUITY	Fair and impartial learning opportunities and access to good teaching for all students. In order to meet educational needs at all levels of development, these opportunities should encourage and enable all students to develop to their fullest potential.	*Equity should allow for learning experiences especially designed to meet the needs of gifted as well as the needs of other students with unique learning abilities. CAG believes challenging programs must be provided for ALL students. Equity in the quality of education each student receives does NOT mean the "outcome" or standard for each student will be the same.*
GIFTED AND TALENTED EDUCATION (GATE)	As defined by California Education Code 52201: "Gifted and talented child, means a child enrolled in a public elementary or secondary school of this state who is identified as possessing demonstrated or potential abilities that give evidence of high performance capability as defined pursuant to Section 52202." Section 52202 states: "For the purposes of this chapter, the demonstrated or potential abilities that give evidence of high performance capability shall be defined by each school district governing board in accordance with regulations established by the State Board of Education. Each district shall use one or more of the following categories in defining such capability: intellectual, creative, specific academic, or leadership ability; performing and visual arts talent; or any other criteria which meet the standards set forth by the State Board of Education (pursuant to Section 52203). Each governing board shall also consider identifying as gifted or talented any student who has transferred from a district in which he or she was identified as a gifted and talented child." Thus, each district establishes its own identification standards to meet the needs of its student population.	*CAG advocates an inclusive definition of giftedness. However, all identification standards must include multiple and varied criteria and give equity to members of underrepresented populations. Student products, normed/standardized test results, student performance, and observational scales are some of the methods used in identification. Factors which may adversely affect student performance, such as economic hardship or linguistic difference, must also be considered. Children must be encouraged and allowed to demonstrate a wide variety of abilities and talents that traditionally are not measured by standardized tests.*

HETEROGENEOUS/ HOMOGENEOUS GROUPING	Grouping heterogeneously generally occurs by chronological age level and without regard for the diverse needs of students, their learning styles, or their interests. Homogeneous grouping is based on common criteria such as the students' interests, special needs, or academic abilities.	*CAG believes students should be grouped for at least some part of the educational day in an appropriate setting, based on a commonality of the students' intellectual, academic, and/or affective needs. There should be a defined educational experience in this grouping.*
HONORS CLASS	A secondary level course specifically designed to be advanced in content, process, and product. Traditionally, students who meet prerequisite criteria are accepted into these courses.	*CAG believes this is one way to ensure a more challenging and differentiated curriculum. Honors classes should be available for, but not limited to, identified gifted students.*
INDEPENDENT STUDY OR SELF-DIRECTED STUDY	Allowing students to follow individual or self-selected areas of interest and specific aptitude by designing and implementing their own study plans. Close monitoring by teachers is an essential component of independent study.	*Independent study is an appropriate programmatic provision for gifted learners at any level, and necessitates teacher (or other qualified adult) instruction and supervision as integral features of the program.*
INDIVIDUALIZATION	Providing a specific program that meets the particular needs, interests, and/or abilities of an individual student for some part of his/her educational experience. It does not mean, however, that every child is working in isolation on a different level or a different subject at all times. It does mean that students are working on levels commensurate with their assessed abilities, needs, and/or interests.	*CAG believes differentiation and individualization resulting from challenging activities or assignments which are interactive and open-ended in content, process, and/or product can facilitate the education of gifted learners. Individualization may also utilize mentorships, internships, independent research, and/or early college entrance programs.*
INSTRUCTIONAL SCAFFOLDING	An apprenticeship approach to instruction which places the teacher in a collaborative, interactive role with students by providing carefully structured and sequenced support as they undertake new and more difficult tasks. Emphasis is on teacher modeling, extension, rephrasing, questioning, praise, and correction rather than on the teacher as evaluator.	*Instructional scaffolding is an effective instructional classroom model for classes with gifted students because it allows and encourages a shared exchange of ideas between teacher and students, as students take on increasing responsibility for their own learning. The teacher plans and initiates a framework of classroom activities. The planned activities provide opportunities for the students to develop their own purposes rather than simply providing responses to fit into a teacher's predetermined outcome. This methodology encourages higher order reasoning as well as basic skills learning.*
INTELLIGENCE QUOTIENT (I.Q.)	A measure of ability or aptitude at a given point in time, comparing children of the same chronological age. Originally it was considered to be the sole way of measuring student ability. Current thinking now accepts I.Q. as one of the many ways to measure a student's academic potential.	*CAG continues to support use of I.Q. tests as one effective method of identification when used with other measures or observations, due to the high correlation between most schooling tasks and the cognitive tasks measured by I.Q. tests.*
INTERDISCIPLINARY CURRICULUM	A curriculum that is structured to study a topic or concept by gathering and relating information and ideas from multiple disciplines.	*CAG believes interdisciplinary learning is one method to differentiate the core curriculum. Making connections or new relationships among disciplines enhances student understanding of the complexity of the content under study.*

INTERNATIONAL BACCALAUREATE (IB)	A rigorous international pre-university course of study, leading to examinations that meet the needs of highly motivated and academically superior secondary school students. IB has a comprehensive classics curriculum (languages, sciences, mathematics, and humanities) that allows its graduates to fulfill education requirements of various nations. Only schools approved by the IB organization may offer the program. Also, school fees are charged by the IB organization.	*CAG supports the International Baccalaureate program as a way of challenging academically gifted students in a program utilizing world-class standards. However, the high cost and the approval process make it a difficult program to implement.*
LEARNING STYLES	A student's preference for a mode of learning and/or a type of learning environment. For example, a student could favor auditory learning in an independent learning environment.	*CAG believes students should have learning opportunities that introduce them to, and allow them to participate in, a range of multiple and varied modalities, resources, and environments.*
MANDATED PROGRAM	A legally required program or action authorized by law.	*Special Education programs are mandated; GATE programs in California are NOT. In order to assure GATE programs in every district, GATE would have to be mandated. Without mandation, on-going advocacy is necessary in each district to initiate and to maintain GATE programs.*
MENTOR	Matching a student on a one-to-one basis with an adult member of the community who can provide expertise and/or advise in a field of study or other community endeavor.	*CAG supports mentor programs as one way to meet the needs of gifted students.*
NOMINATION	A referral process for consideration of a student into a specialized or categorical program.	*The GATE nomination process should allow for administrator, teacher, parent, and self-referral.*
NON-TRADITIONAL IDENTIFICATION	An alternative means of identification using instruments and procedures that provide an assessment of students that is not norm-referenced or standardized.	*CAG believes that the diversity of students necessitates more varied approaches to assessing and interpreting their abilities. Traditionally, students have been identified as GATE on the basis of their general intellectual abilities (I.Q.) or specific academic aptitudes. (See also Authentic Assessment.)*
NORM-REFERENCED OR STANDARDIZED TEST	A test used to determine an individual's status with respect to the performance of other individuals on that test. A "norm" group is the large number of examinees who have taken a particular test and whose scores form the basis of the norms. Such a test may be based on national norms, state norms, or local norms. At every level of educational test usage, it is necessary to match the scope of the test with the purpose that test is supposed to perform.	*As standardized tests are often used in the screening and identification of gifted students, CAG cautions against the misinterpretation of tests results. The question to ask is, "Is the test an appropriate measure to verify a students' gifts and talents?"*

OPEN-ENDED QUESTION	Provides opportunities for more than one "right" solution or answer. Student response is judged by the logic by which the response is explained or defended. Students must be able to: recognize tasks without a label, draw upon prior knowledge, generate relevant approaches on their own, and articulate their reasoning.	*CAG believes open-ended questions and assignments allow gifted students to respond at a more challenging level.*
PEER GROUPING	A practice which indicates voluntary or assigned matching of students by shared characteristics, such as age, ability, need, and/or interest in order to affect teaching and learning.	*In a group of intellectual peers, age is not a criteria for grouping. CAG supports cross-age grouping practices.*
PORTFOLIO ASSESSMENT	A collection of student products used to measure student progress and achievement. A collection of student products is often used to evaluate abilities to determine the appropriateness of placement in a program such as visual and performing arts. This practice allows students to demonstrate a wide variety of abilities and talents that traditionally are not measured well by standardized tests. Material in a portfolio may be student-selected. (See also Authentic Assessment.)	*CAG believes portfolio assessment is an effective way to provide a profile of the gifted learner. It more closely parallels what adults in the "real" world do to exhibit the quality of their work.*
SCHOOL IMPROVEMENT PROGRAM (S.I.)	A K-12 categorical program funded by the State of California. Funds are used in selected schools for staff and curriculum development purposes, improvement in school climate and culture, management and leadership training, and direct classroom support.	*S.I. funds are intended to benefit all students, including GATE students. School provisions for serving gifted students must be reflected in all school-site plans.*
SCHOOL OF CHOICE	Opportunities for parents and students to select a school of attendance. Choice is fundamental to the voucher system.	*The CAG organization, as of this printing, has not taken a position on the issue of vouchers. However, CAG supports specialized opportunities for both inter- and intra-district student transfers to public educational institutions such as magnet, regional, residential (ex. the North Carolina School of Science and Technology) or special schools (ex. the Los Angeles County High School for the Arts).*
SPECIAL DAY CLASSROOM	A programmatic term defining a homogeneous setting of students with common needs and/or abilities. The class can include multiple grades or ages.	*CAG believes that this is one of the ways that facilitates the education of gifted students. This classroom setting allows for the appropriate implementation of differentiated curricula, including multidisciplinarity, individualization, depth, and complexity in content areas, as well as pacing that is appropriate to the gifted learner. It also provides the vital interaction among peers necessary for gifted learners.*

SITE-BASED MANAGEMENT (SBCP in California)	A current school restructuring model by which local autonomy is given to schools for planning and decision-making. Also known as school-based management, a team of educators and community members assume responsibility and accountability for all education programs in a school, striving to assist all students to reach their fullest potential. Under SBCP, categorical funds MUST be used to SUPPLEMENT, not SUPPLANT services to special needs students.	*Under SBCP, categorical funds may be commingled to serve a greater number of students. Needs of gifted students must still be addressed. The school's approved instructional plan MUST reflect differentiated curricular opportunities and delivery services for GATE students.*
SUNSET	A legislative term indicating the stated procedure and date of review for continuation or termination of a categorical program.	*The next review of the GATE program is due in 1993.*
THEMATIC CURRICULUM	A curriculum which focuses on the study of a topic or concept that is specific, such as "animals," or global, such as "change." The theme serves as an organizing element to provide continuity and "connectedness" for learning.	*CAG believes a thematic curriculum that is defined and focused allows for continuous in-depth learning for gifted students.*
TRACKING	Fixed groups that are rigidly maintained over time. This word is NOT synonymous with grouping and does not preclude opportunities for special needs groups for any learner at some time.	*CAG's position is that NO child should be "locked into" an on-going educational program that perceives and instructs him/her in only one aspect of his/her dimensionality. Its inappropriateness for gifted learners can be seen when those with specific aptitude, or who perform at high levels in only ONE area, are involved in advanced learning experiences in ALL areas of study.*
UNDERACHIEVING	A discrepancy between recognized potential and actual academic performance. The causes of underachievement may be social, emotional, physical, and/or academic.	*CAG's position is that a good program serves all of its gifted students, NOT just those who are achieving. Inappropriate curriculum often has as its consequence the underachieving gifted. Special counseling for underachieving gifted may constitute an appropriate learning opportunity.*

Bridging the Gap: The Skills Reinforcement Program

by Shawn Okuda Sakamoto and Elizabeth Jones Stork

In the state of California, children of color are growing in number and are rapidly becoming the state's majority. It is projected that by the year 2000, nearly 60% of the students enrolled in California schools will be youngsters of color. Currently, one out of every seven students comes to school not understanding English (*Children Now*, 1990). Such a dramatic change in demographics has called for increased attention to and awareness of the "minority-majority." This poses quite a challenge to educators here and elsewhere. How do we adequately meet the educational needs of a rapidly expanding, diverse student population? In particular, researchers have been grappling with the issue of gifted and talented education for socioeconomically disadvantaged and culturally different students. Despite recent efforts, children of color – who often tend to be among the state's poorest – are significantly underrepresented in gifted educational programs.

Program Description

Supplemental programs, such as the Skills Reinforcement Program (SRP) developed in 1985 by The Johns Hopkins University Center for Talented Youth (CTY), continue to be crucial in providing students with the necessary tools and opportunities to develop, enhance, and expand skills essential for educational success. This program was first implemented in the Pasadena Unified School District and later replicated in the Los Angeles Unified School District and the Yonkers School District in New York. The SRP provides youngsters with appropriate supplemental education intervention designed to fortify their knowledge in mathematics or language arts and help them successfully compete in enriched academic coursework in their home schools. Students engaged in the SRP participate in 20 Saturday classes and a two-week residential program geared to fill in the gap and motivate students toward meeting high educational expectations.

The program is based upon four principles:

1) to improve academic skills in reading and mathematics;
2) to foster higher-level reasoning, problem solving and critical thinking skills;
3) to promote positive study skills and love for learning;
4) to foster affective traits such as self-confidence and self-esteem.

Students are given the opportunity to learn in a safe setting with specially trained teachers, assistants, and recreational advisors. The curriculum is based on an individual diagnostic prescriptive program geared to assist students in realizing their intellectual potential in accordance with their ability. The program strives to obtain an ***optimal match*** of learning style and pace with the needs of each individual learner. The student and teacher work together to master a concept, then they move to the next concept without delay.

Present and previous research of the SRP in Pasadena and Los Angeles Unified School Districts has demonstrated significant gains in academic achievement (See table to the left), as measured by performance on both achievement and aptitude tests (Lynch and Mills, 1990, 1991; Mills, Stork, and Krug, in press).

The complex needs of these students are often overlooked in the predominantly diverse and overwhelmingly crowded classrooms of inner-city schools. As a consequence, young-

Percentile Rank Changes for SRP and Control Groups
(Los Angeles Unified School District)

I. Language Arts Program

Group/Test	Pre-Percentile Rank	Post-Percentile Rank
SRP STEP Reading	64	76
Control STEP Reading	62	56
SRP SCAT Verbal	68	85
Control SCAT Verbal	66	73

II. Mathematics Program

Group/Test	Pre-Percentile Rank	Post-Percentile Rank
SRP STEP Math	46	87
Control STEP Math	49	72
SRP SCAT Math	68	85
Control SCAT Math	66	73

Note. Percentile ranks are based on fifth-grade testing for pre-tests and seventh-grade testing for the post-tests.

sters with high academic talent, who are not adequately challenged, may fall into counter-productive modes such as dropping out of school, gang affiliation, crime, and violence. Such involvement flags a cry for help – for the provision of alternative forms of acceptance and recognition. As Hanninen, Fascilla and Anderson (1991) noted in a recent article, gifted children are not immune to the exposure of many environmental risk factors, and many are at risk for failure. They further pointed out that at-risk gifted students desperately need:

a) to establish a positive relationship with an adult role model;
b) to learn to value education;
c) to gain decision-making skills to support making appropriate choices; and
d) to move at an appropriate pace in academic training.

One of the goals of the SRP is to promote and support affective traits such as academic self-confidence, a positive, but realistic self-image, love of intellectual activity, and an appreciation of academic accomplishment. That is, SRP not only offers the tools to build educational/academic success through teaching and curriculum, but also provides the "cement and nails" by encouraging psychosocial development in areas such as self-esteem and self-confidence, and parent, teacher, and peer relations. Important gains in sociodevelopmental, affective, and motivational skills of the SRP students need to be documented as well. The focus of this paper is to recognize and validate the growth of these students in psychosocial areas which is imperative to fulfilling their talent potential.

Role of the Supportive Environment in the Development of Talent

The critical role of the social environment in the development of talent has long been recognized and emphasized. Beginning in the 1960's the focus of educational research pointed to the often detrimental effects of the lack of enriched and stimulating learning environments (Bloom, 1964; Holt, 1966; Rosenthal and Jacobson, 1968). Careful guidance and nurture, in general, is imperative to full attainment of talent. There have been numerous studies of eminent and gifted scientists, athletes, world leaders, musicians, artists, and scholars. All have, at least in part, highlighted the importance of supportive and favorable training/learning circumstances and the equally important role of a mentor or several role models (e.g., see Albert, 1975; Bloom, 1985; Gardner, 1981, 1982; Walberg et al., 1981). Further, high achievers were found to be particularly appreciative of "teachers" (including older peers, faculty, parents, and siblings) who acknowledged their academic interests, allowed them to work independently at their own pace and challenged their thinking (Goertzel and Goertzel, 1962). Clearly, then, the involvement and interest of parents, teachers, and peers in a supportive environment is crucial to the full development of talent.

Parental Involvement

As noted previously, supportive family environments are imperative to advancing intellectual growth. Parents are the child's first and primary adult role models and thus have a significant impact on the child's self-esteem, self-confidence, and attitudes towards school and achievement. Rimm and Lowe (1988) compared the family environments of gifted students achieving at or above some measured ability standard and those performing below such level. Generally it was found that parents of underachieving gifted students were concerned with their child's achievement, but were less involved with career planning, valuing school, and intrinsic and independent learning (Rimm and Lowe, 1988). All parents want the best for their child but many do not have the resources or experience to draw upon to provide the educationally stimulating environment these youngsters so desperately need. Recognizing this important component in student learning and academic success, the SRP developed a strong parent-guardian education component. It was apparent that working with a student in isolation would not produce a lasting change in behavior or attitude toward learning. Parent education classes focused on the entire family unit, providing counseling, literacy classes, health information, access to local school personnel, and information regarding community resources. Parents become very involved and informed regarding student performance in the program and current academic objectives. Parents and students are also required to sign an agreement at the initiation of SRP which demonstrates a commitment to ongoing and active participation throughout the two-year program. This is to ensure that parents or other family members get involved with the education of the student,

and consequently, stay involved long after the program has ended. In a follow-up study of the Los Angeles Unified School District SRP, such intervention has been successful in maintaining a parent-educator role. One student thoughtfully remarked, "My mom's expectations have changed – they're much higher. She expects me to do much more, and I really have been doing the best I can." Another student eagerly added, "My father is very proud of me. My mom is always [praising] me and she comes to more of my school meetings. She's also more involved with me."

Parental involvement and expectations do not change overnight, and the SRP cannot be fully credited with such a dramatic shift in commitment. Rather, the issue at hand here is helping parents to feel capable of identifying what and how they can provide for their child's educational and emotional needs. As one administrator put it, "Most of the parents are already willing to help at the start [of the program], but they need structure, guidelines, and information to aid that willingness. They need to know and be told of expectations, of ways to help. Parents often approach me with a 'Tell me and I'll do it' attitude." Informational meetings and workshops for parents are held throughout the SRP program. Additionally, information about gaining access to a variety of community resources is provided to the parents. One parent remarked, "I try to keep her highly motivated about continuing her education, especially as a black person. You know, I tell her, because she doesn't want to do these little mediocre jobs... that it's important to get an education."

Teacher Expectations and Recognition

In a review of research on teachers' influence on achievement, Brophy (1968) concluded that students achieved at a higher level when their teachers:

a) emphasized academic objectives in establishing expectations and allocating time,
b) used effective strategies to ensure that study time is maximized,
c) paced students through curriculum in challenging, manageable steps that allowed high rates of success, and
d) adopted curriculum materials based on their knowledge of students' characteristics.

The attitude of the teacher is crucial to the child's academic and social development. Teachers need specialized training in recognizing and interpreting behavioral patterns related to high academic achievement, and to apply strategies to enhance such achievement/potential in a diverse population of students (e.g., see Baldwin, 1987; Comer, 1988).

Teacher training is a critical component in making this program effective. Teachers are subject area specialists with a passion for learning and enthusiasm for guiding youngsters through the process of discovery and of knowledge. Each SRP teacher participated in intensive teacher training on the methods of instruction utilized in the program. The training included work in how to implement the optimal match, individualized instruction, cooperative learning techniques, and testing and evaluation. In interviewing SRP students about their relationship with their teacher, all agreed that their teachers played an important role in their academic and social growth. A student from an inner city school district in New York felt that "teachers at my school baby-sit us because there are so many of us that she doesn't know what to do sometimes. And my teacher at school always tells us to be quiet all the time. But the teachers here at SRP are different. They're able to spend more time with us—they give us more attention and extra help if we need it...with anything." An SRP teacher observed that it is important that "thoughts and feelings are valued in the program. It is very empowering for a child to sit among other students and adults, and be able to share in decision making, to have an opinion, and to be valued by others."

The individualized and flexible pacing of the curriculum is an important aspect of the SRP. High, yet manageable instructional goals are developed in accordance with each student's past performance and mastery at each level. As one SRP participant put it, "Schools are too strict, too... like, stiff. Anyway, at my school, you work at the teacher's pace and not your own. You don't get to explore topics, and often you either move too slow or too fast. At SRP, we're allowed to get excited about things we're learning about – the teachers really get into it." One administrator reflected, "Schools often structure kids. This program turns this relationship around to allow kids to have some say in their own education."

Social and Emotional Development

Social acceptance becomes increasingly important to children as they grow older.

Around age eight, children seek to decrease their dependence on and their need for the approval of their parents and other adult figures and to increase their need for peer approval. The decision to pursue academic achievement is often a difficult one for these students, socially. Such a choice may often be interpreted as rejecting the culture of one's social peer group (Comer, 1988). Teachers and recreational advisors are encouraged to create an environment conducive to peer acceptance. Instructional methods – such as workshops, peer editing, and cooperative learning and problem solving – assist students in celebrating their exemplary academic strengths. One student noted, "I was glad and relieved to meet other students who were like me. It's difficult to be cool and smart in school, but here, it's okay to be both." Another student added, "They [other students at school] accuse you of trying to impress the teacher or [of being] a teacher's pet. I guess not really teased, but really put down." Gaining acceptance through sharing is an important milestone, particularly for children of color. These children need to understand that it is acceptable to be "gifted," and that it is valued, not only by adult role models, but especially by their peers. This understanding lends itself to promoting self-confidence and self-esteem, the prime motivators of success in an academic climate.

Interestingly, other forms of sociocultural growth develop in accordance with this awareness and acceptance of oneself and others. Many researchers have underlined the importance of providing an educational arena where culturally different students can be exposed to other students of color who are gifted and who have made significant accomplishments (Baldwin, 1987; Exum and Colangelo, 1979; Frasier and McCannon, 1981). A Black-American student insightfully observed that, "SRP offered mixed racial group interaction. A lot of minority programs include only blacks, but here there were different ethnic groups. I liked that because it didn't, like, you know, single me out." Similarly, another student added, "Yeah, there was a mixture of students. It encouraged us not to be racist against other minority groups and to accept each other. When I entered junior high I felt that I was better equipped than others to interact with other students, especially all types of students from different ethnic groups (not just other black students—though that's important too)." The program encourages positive peer interaction outside the classroom as well. Students engage in group discussions about current events, social issues, college planning, and career aspirations. They are constantly reminded of how to cope with being "academically able."

Implications

These observations have important implications for the development and promotion of talent in not only children of color and socioeconomically underprivileged groups, but also for all students. A common thread runs through all of the issues covered herein and that is of bridging the expectations and educational values between teachers, parents, and students. Many kinds of development, whether social, emotional, moral, cognitive, or cultural, are imperative to future academic advancement. Understanding and addressing all areas of individual development is the first of many steps towards enhancing the talent potential and learning of all students.

Authors' Note

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Shawn Okuda Sakamoto is a Research Associate with the Center for Talented Youth (CTY) Program of Johns Hopkins University. She and E. Stork can be reached at 520 East Wilson Avenue, Glendale, CA 91206.

Cami James, Fourth grade, Patton School, Garden Groves USD

Linking Resources for Success

by Lyn Carman

I was getting C's in math, but I got a tutor and now I'm getting A's and B's. We take field trips and I've made a lot of friends. I'd like to be a teacher myself.

Tony Morales, seventh grader, Santa Barbara Junior High School

Question: What do you do when you are the GATE Coordinator for a school district with approximately one-third of the students Hispanic or Black and find that only about 5% of the students in the GATE Program are Hispanic or Black?

Answering this question brought about the development of Santa Barbara High School District's LINK Program. Since its beginning in 1983, the LINK Program has won a first place Golden Bell Award, was one of ten State Department of Education Tanner Bill projects, and was a California Academic Partnership Program with UCSB.

Designing a program to increase the number of minority students in the GATE Program and improving the academic achievement of students in groups underrepresented in higher education was the challenge. In the spring of 1985 a group of people including parents and representatives from a half-dozen different educational areas gathered for a two-day seminar to answer the question, "What can we do to assure that more Black, Hispanic, and low income students are prepared to enter and succeed in a college or university?"

In the two days of discussion, there were many comments that laid the foundation for the program.

One junior high math teacher who participated said, "We need to provide a carefully structured tutorial system – one that really works."

"But don't build a dependency system," was an administrator's response. "This must be a program that helps students take responsibility."

"Yes, and you must hold high expectations for student achievement," stated a parent participant. "Students are capable of so much more than is usually required of them."

"Affirming cultural and ethnic differences is important," a Latino principal reminded the group.

"Emphasize language skills, both reading and writing," was a comment made by many people.

"Provide experiences they would not otherwise have," was another suggestion. "Take them to art museums, to university science classes; let them discuss ideas and learn from our university and college people, and some of our very talented community people. Our summer school head-start program for our high potential Black and Hispanic students going into seventh grade has been working well. Make certain it's included in the proposal."

The one idea that was echoed by each participant during the two days was the need for "someone in the system who cares." "What happens," explained one of the sixth grade teachers, "is that the students come from elementary schools where they usually have the same teacher all day. That teacher gets to know the family and the student very well during the school year. However, when students go to junior high school they are placed with teachers who have 150 or more students per day. Certainly these junior high teachers 'care' but how much can they reasonably do in terms of long term personal attention?"

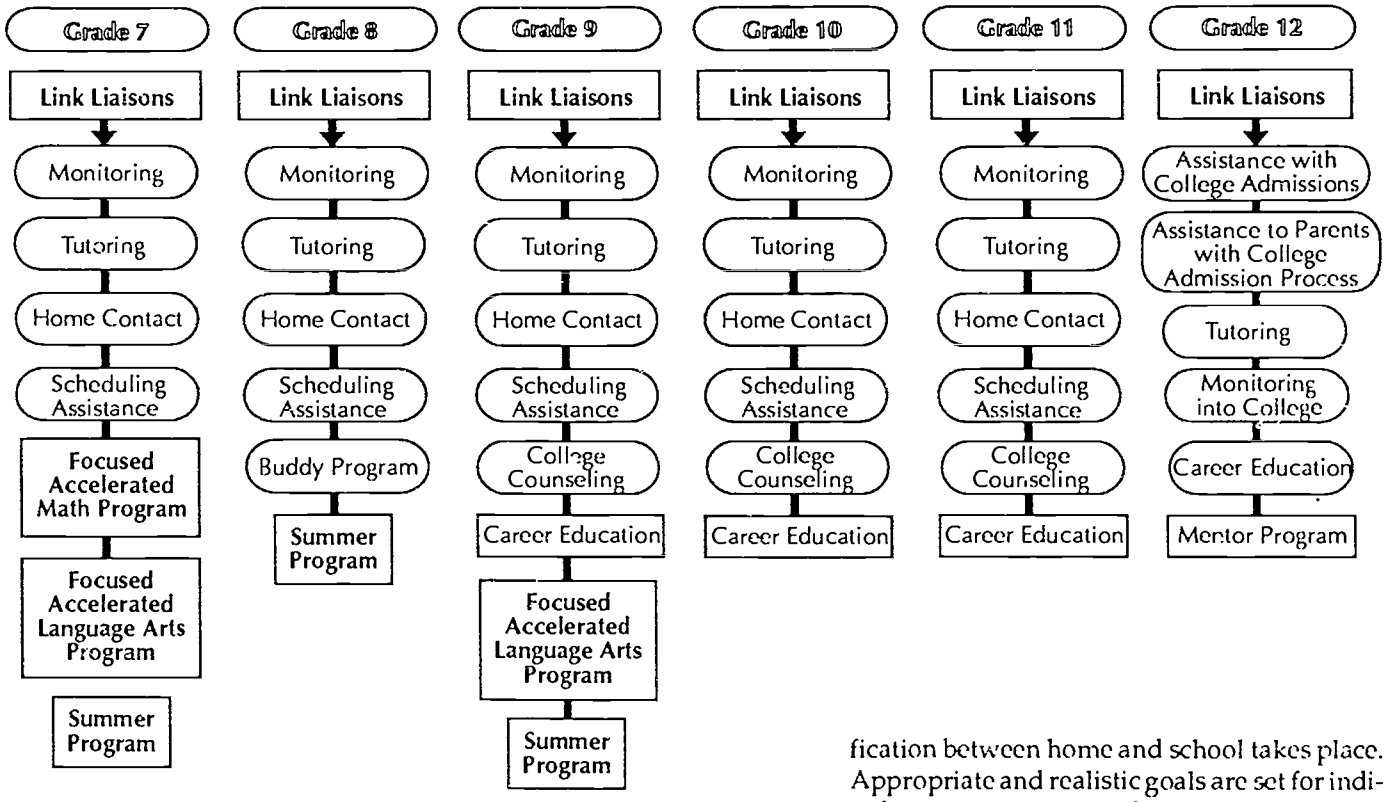
"You seem to be describing the need for someone who serves as an advocate for the student and who is able to serve as a central resource person by working with the family, the school, and service groups," was our university participant's comment.

"Okay," said the grant writer in the group, "is this what you're saying: the purpose of the program is to provide an academic support continuum beginning at the elementary and progressing to the post secondary level for students with high academic potential who come from ethnic groups that are underrepresented in higher education? A teacher/liaison will serve as each student's educational advocate, thus assuring continuity in academic planning and skill-building as well as parent and teacher involvement in the student's progress. This teacher/liaison will have responsibility for providing the integrated support system that is necessary for successful progress along the academic continuum."

From the comments represented above, and many more not included, the California Academic Partnership Program proposal was written, funded, and named the LINK Pro-

The Link Program

Linking Resources for Students Underrepresented in Higher Education
Santa Barbara School and High School Districts



gram (LINKing resources for students underrepresented in Higher Education). The proposal listed four components as essential.

Identification

The student is labeled positively and rewarded for good academic effort. He or she is classified as a model for peers to emulate and expectations are raised about academic performance.

Students are identified for the program on the basis of CTBS scores (one total score in reading, language, or math at the 80th percentile or better), teacher recommendations, academic achievement, and sometimes a student's demonstrated commitment to achieve academically. A wider pool of students is selected initially, and students who prove themselves are then selected for the GATE Program.

Goal-Setting

Second is goal-setting. Through the teacher/liason's home and teacher contacts, a program of academic planning and values clarification between home and school takes place. Appropriate and realistic goals are set for individual students with the help of parents, teachers, and tutors.

Skill-Building

Third is skill-building. Through one-to-one tutorials designed and monitored by the teacher/liaison and classroom teacher, students receive academic assistance in problem areas. Other academic resource programs are integrated into each student's overall program.

Enrichment

Fourth is enrichment. Through special summer school programs and during the school year, students participate in a wide variety of activities that would not otherwise be available. They have the opportunity to discover their own talents, build specialized skills, learn about different careers, and gain in overall confidence. These experiences give the students the head start they need as they progress along a highly competitive academic continuum with other students.

The program now has more than 410 participants in grades seven through twelve and is

in some ways even more successful than the original designers would have imagined. Some of the program outcomes are the following:

The percentage of Hispanic students in the GATE Program has increased from 7.6% in 1985 to 21.4% in 1991.

The number of Santa Barbara High School Hispanic students who are eligible for UC admission has approximately tripled. Over $160,000 in scholarship money was earned by these students in the graduating class of 1991.

Teacher/liaisons have worked with the identified LINK program students since 1984. They average 11.8 student contacts per day and 4.5 parent contacts per day. The average number of mailings to parents/students each year is eight.

LINK has sponsored monthly career seminars for students, a "buddy program" pairing junior and senior high school students, and annual leadership conference for minority students, "the college admissions process" sessions for parents/students, and many other special opportunities.

A Tanner Bill grant designed especially to help students improve their college admissions test scores was awarded for LINK program students.

The high school LINK students enrolled in the LINK SAT test preparation class, significantly improved their SAT scores as indicated by pre- and post-testing.

There has been a significant improvement in knowledge of the college admissions process on the part of parents and students with a corresponding increase in academic aspiration. A pre- and post-assessment was made at the beginning and at the end of the school year to determine parent/student change in knowledge as a result of the LINK program activities. This study was designed by Dr. Richard Duran of UCSB.

In a survey of administrators, counselors, and teachers, 100% of the respondents stated that the program does meet the goal of helping the target students improve their academic performance and chances for college success.

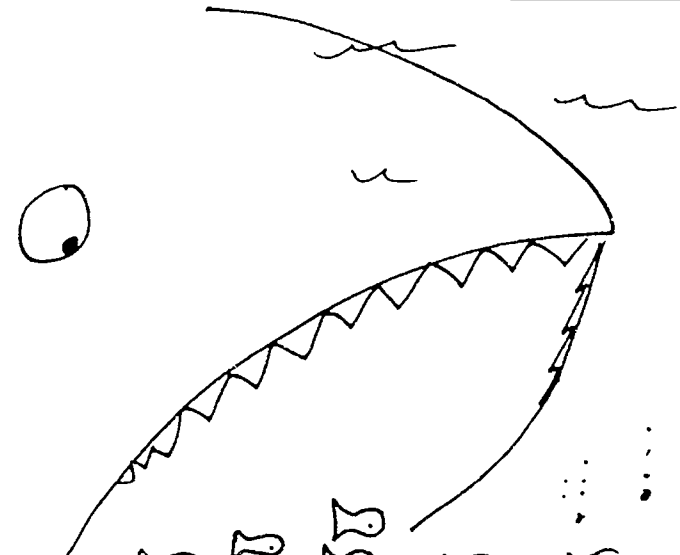
In the first five years of the program there was only one student drop-out. This is from a population that has grown from 160 to over 400, and that would ordinarily be at high risk for dropping out.

In the follow-up surveys, 100% of the participants in the summer program stated that it had given them a valuable head start in junior high school.

Lyn Carman was the GATE Coordinator for the Santa Barbara High School District from 1980 to 1991. She may be reached at 805-964-1042.

ON THE LIGHT SIDE

by Jean Watts



You guys, we need a role model.

Someone larger than life who will take us in, so to speak.

Peace

Peace is the doves that fly in the sky.
Peace is the truth, not lie after lie.
Peace is harmony we hear from above.
Peace is to care, be kind and to love.
Peace is the sunset we see in the night.
Peace is the Earth without any fight.
Peace is the sea so quiet and calm.
Peace is respect for your Dad and your Mom.

Danny Hasheminejad
Grade 6, Allen School, Garden Grove USD

Yo Puedo: Program for Gifted Migrant Students

by Nancy León

Juan Lopez has traveled back and forth between Salinas, California to Mexico for the past five years. His parents work in the lettuce fields as migrant laborers. In the winter when there is no work in the fields, the family returns to Mexico to live and reunite with relatives and friends. Juan and his four brothers and sisters leave their schools in Salinas and enroll in a school in their village. Juan's family moved to the United States when he was eight years old. They left friends, relatives and their beloved country in order to find a better way of life.

According to dropout statistics, Juan is a "high risk" student. On the other hand, Juan has learned to live in two cultures, speak two languages, helps his family by working in the summer, and takes care of his brothers and sisters. He also understands the backbreaking work his parents must do in order to clothe and feed the family. Juan Lopez is a "C" student and he is gifted. Are Juan's life experiences reflected in the classroom and the curriculum? Are we validating his ability to move in and out of two different communities, cultures, and languages, and his responsibility toward the family unit? How relevant is the school curriculum to Juan's life experiences? How are we motivating Juan to plan for a future that will take him out of the fields, in the same courageous way that his parents took him out of the poverty of the life in Mexico?

The "Yo Puedo" (I can) Program enrolls students like Juan in its 4-week college bound summer residential program at the University of California at Santa Cruz. By the end of the program, Juan and 49 other migrant students envision a new future for themselves – a future that includes a college education.

Nancy León is the Director of Migrant Education for Region XVI. She can be reached through the Monterey County Office of Education, P.O. Box 80851, Salinas, CA 93912-0851.

At "Yo Puedo" migrant students learn from the program's staff that anything is possible and that dreams can come true. The "Yo Puedo attitude" permeates every aspect of the program. The teaching staff consists of teachers, local artists, and migrant college students. All of them have lived or understand the migrant lifestyle. Some of them are "Yo Puedo" graduates. Most importantly, they care, they are committed, and they believe that every student is intelligent and fully capable of achieving his dreams.

Each class provides students the opportunity to express themselves, to share their experiences, and allows teacher-student and student-student learning. In class and every evening, students work together in cooperative learning groups. Students are in class from 8:00 a.m. to 5:00 p.m., Monday through Friday. At the end of the program, an anthology of student writing is produced through a joint effort of the creative writing, computer, and art classes. These writings reflect the students' experiences, family, and cultural roots. In the writing and literature classes students read different works by latino authors: Garcia-Lorca, Isabel Allende, Tomás Rivera, Sandra Cisneros, Francisco Alarçon, and others. Through literature and their writings, they are able to reflect on themselves, their personal pasts, their present lives, and their future dreams.

The teatro (drama) class is taught by an artist from Teatro Campesino. He helps the students lose their fear of speaking in public. They discuss issues related to family, gangs, peer pressure, drugs, and alcohol and develop skits which they present to their families on Sundays.

The art class is taught by a latino artist who has painted murals in Watsonville, Los Angeles, and San Diego. Students learn the history of mural painting. They design and paint murals which reflect their experiences, roots, and future dreams.

In a life planning class, students learn the importance of setting goals and making decisions at an early age. They learn about financial aid, scholarships, and the academic requirements for a college education. They also hear latino professionals talk about their careers and how they "made it".

"Yo Puedo" gives students the opportunity to explore and develop their creative voices, to gain a deeper understanding of themselves, to gain an appreciation for who they are and where they came from. They are encouraged to take risks and to "dream."

When Juan returns to his high school in

Salinas, he will participate in a Leadership program for Yo Puedo graduates. Through this program, Juan will teach younger migrant students some of the lessons he learned at Yo Puedo. These students will be motivated to think about their future to see that there are many possibilities available to them outside of the fields of the Salinas Valley.

Approximately 80% of the students who attend "Yo Puedo" enroll in a community college or four year university. Many of them are enrolled in private universities such as Cornell, Stanford, MIT, and Williams. All of them have graduated from high school.

More importantly, "Yo Puedo" graduates learn the importance of supporting one another to achieve their goals. They learn the importance of serving their community so that friends, brothers, and sisters will also succeed in school. A student who attended "Yo Puedo" said,

At 'Yo Puedo' I learned to try my hardest and never give up, even when the odds are against me.

La Alcachofa

Alcachofa, tú que me das de comer,
ayudas en mis estudios y mis amados,
esas espinas me enseñan ser
fuerte, valeroso y siempre armado.
Tú tienes el corazón del valiente
porque debajo de todas esas
escamas.
Tienes el corazón grande y caliete
escondido entre tus ramas.
En el pueblo de Catsroville,
en ese lugar te veo todos los días,
siempre al lado de mí,
ayudándome como el mejor de los guías.
Vegetal, grandioso, brava y noble,
a ti te dedico mi corazón
aunque tú no lo necesitas
por amable.
¡Tú, mi alcachofa eres rica
por ser verde, sabrosa
y sana como
mi tierra mexicana!

The Artichoke

Artichoke, you who feed me,
help in my studies and help my loved ones,
those thorns teach me to be
strong, brave and always armed.
You have the heart of courage
under all those scales.
Your heart is enormous and hot
hidden beneath those leaves.
In the town of Castroville,
in that place I see you everyday,
always beside me,
helping me like the best of guides.
Vegetable, large, brave and noble,
to you I dedicate my heart
even though you don't need it
for your gentleness.
You, my artichoke are rich,
green, delicious
and healthy
like my Mexican land!

by Victor Cardenas, Eleventh Grade, Yo Puedo Program
North Monterey County High School, Patrice Vecchione, Poet-teacher
Translated by the author. Victor is currently a junior at UC Santa Cruz, spending this year in Mexico as an exchange student.

Project:VIA S.O.I. – Reflections on Year III

by Bobbie Infelise

How many migrant GATE students do we have in the state of California today? According to the State Department of Education, California has identified some 200,000 migrant students in our public schools this year. Of these, 765 have been entered into the Migrant Student Records Transfer System (MSRTS) as GATE students. This number represents far less than the top 2% of these 200,000 migrant students. Some of the remedies which present themselvesare:

- GATE programs identifying Migrant Ethno-Linguistically Diverse (MELD) students using an alternative assessment process and reporting these students on the MSRTS forms
- A particular migrant region with a high representation of gifted students having one or more school districts with Migrant Education Services and GATE Services well coordinated for the identification, documentation, and placement of their MELD students
- One or more districts having Support Service Liaisons (SSL) or Migrant Resource teachers conscientiously reporting their district's identified GATE students on the MSRTS forms
- Middle and high schools reporting their students more frequently/consistently than elementary districts or vice versa

These issues reflect, in part, the basis for the proposal of this Jacob Javits Federal Grant in gifted education. PROJECT:VIA S.O.I. also focuses specifically on the use of results from S.O.I. (Structure of the Intellect) assessment as a component of a migrant student's identification as gifted and talented. In its third year of implementation in four counties along the central coast of California, this Project has been hosted by the Alisal Union School District. The focus of the Project has been directed towards classroom

teacher training in the use of Dr. Mary Meeker's S.O.I. learning assessments, available in both Spanish and English, as a means to identify giftedness among their Migrant Ethno-Linguistically Diverse (MELD) students. To review MELD profiles, the Project has gathered testing data from various elementary grade levels specifically containing migrant student representation. The Project has also worked to analyze the differences in S.O.I. test performance among the MELD students and to identify various gifted profiles of these students.

Concurrent with student testing, Project participants received instruction in the use of the Guilford model as well as assistance with the administration, scoring, and profiling of their S.O.I. test data. This training and testing format has given classroom teachers an S.O.I. perspective about their students' abilities to process the testing information. In addition, it also has provided an alternative assessment source for the recommendation of students to a district's GATE program. Bringing in Migrant Resource Teachers this year from the host district has supported having the GATE identification of migrant students documented on their MSRTS data forms. The collaborative efforts of migrant support personnel, GATE program personnel, and classroom teachers further strengthen the opportunities for the identification, documentation, and program support for gifted and talented migrant students.

Project:VIA S.O.I. also chose to use S.O.I. assessments in order to explore the potential for test results to provide a more equitable selection process for different ethnic groups. For district level GATE selection purposes, in addition to using the S.O.I. criteria for the top 5% performance level at each grade level, districts have explored alternative performance options. Some have explored selecting students from the top 10% performance level or from high performance levels in particular operation areas such as divergent production, memory, or evaluation. Other districts have chosen self-selected criteria levels of S.O.I. performance, specific to their district, as one component of their GATE identification process. Dr. Sally Patton, author of the grant, also suggested that an initial Project criterion for gifted identification levels be used to establish a baseline for qualifying MELD students with the S.O.I. Form P Diagnostic and Processing tests.

As a collaboratively selected format, the district's specific criteria also can assist a district in establishing a baseline criterion, reflective of the various ethnic groups represented in their student population. To support this format, each district's GATE selection process also has to document an equitable qualification of students for GATE services in each of the different areas identified by the State Department of Education and the California Association for the Gifted. Furthermore, each district's support personnel in migrant gifted identification need to focus on collaboratively working with GATE personnel, parents, and classroom teachers to identify and support the individual needs of each migrant gifted student as they relate to the student's current educational performance and his or her future goals.

To study the impact of specific at-risk factors which most impact the migrant student's potential for success, the Project also has assisted with the implementation of an after-school program funded by SB 65 monies to enhance learning abilities for approximately 50 students. Each student qualified as an at-risk student under the SB 65 guidelines and each primary student participated in S.O.I. testing. Memory and evaluation activities provide the main focus of this program for first through sixth graders. Students scoring in gifted stanines in fourth through sixth grades will also be nominated for a GATE referral. Post-test differences will be evaluated at the end of the current school year in the two primary classrooms.

Districts interested in supporting the Project's efforts to increase the representation of MELD students in their GATE programs may send their identification and documentation data to:

PROJECT:VIA S.O.I.
c/o Frank Paul School
1300 Rider Ave.
Salinas, CA. 93905

The Project also welcomes information from districts using S.O.I. assessments, especially when used in Spanish, as a non-traditional identification component for their GATE selection process. Districts may contact the Project office by phone at (408) 753-5748 if interested in having a Project presentation for their staff. In conclusion, districts are encouraged to support efforts for the identification and documentation of their migrant gifted students now and in the future.

Bobbie Infelise is the Director of PROJECT:VIA S.O.I. Bobbie worked initially as the Project's Resource Teacher with Dr. Sally Patton. She also has directed a summer school program called VISTA for the past two summers. Through the Alisal Union School District, VISTA provides an accelerated learning program opportunity for potentially gifted students funded jointly by migrant and core summer school monies.

Extending and Enriching Curricular Activities for the Hispanic SOL* GATE Student

(*Speaker of Other Languages)

by Bobbie Infelise

"I don't speak Spanish. What can I do for my GATE students who only speak Spanish?" The GATE teacher facing this challenge can find support for extending and enriching activities through self-directed modifications of their regular gifted curriculum by using their students as their guides. Asking about the student's cultural heritage provides a first step in directing the course for curricular activities. In addition, bilingual students, school support staff, and parents may welcome the opportunity to assist with curricular translations needed for a particular unit. In some instances also, the student's Spanish skills also can be shared with peers as a base for the acquisition of Spanish.

Through the exploration of the student's cultural heritage, the GATE teacher can incorporate an in depth study of geography with a theme of "My Family Comes From..." - "Mi familia viene de...". Students research the towns or cities that their families call home with investigations about the economics, politics, demographics, and famous features of the place. While Spanish-speaking students might present their information in Spanish, dual language word banks of geographic terms can also be created for use in bilingual travel brochures created by the students to entice their friends to visit or to move there to live. Defending the virtues of their home town as "the place to live" provides a basis for exploring the criteria for "exemplary and ideal" and moves the students towards thinking about systems which support the qualities they value.

From these investigations, the students can then move to researching time travel requirements for visits between and among the various places presented. For example, students could determine time requirements for travel on foot, by bike, in a jet, etc. from one classmate's home to another and extend it to determining how many places could be visited in one day, one month, or perhaps a year. Different navigational routes and climatic risk factors could further enrich their calculations.

Moving from the realm of geography into the arts, the teacher could have the students begin to learn about the artists, authors, composers, inventors, playwrights, etc. of the geographic areas studied or of a particular time period of interest to the students. Again, an in-depth review of similarities and differences between the time periods can enrich the curricular activities for the GATE students in Spanish or English. Local Hispanic theater groups, musicians, muralists, poets, writers, newscasters, etc. can be invited as guest speakers and presenters to the GATE class to extend the information acquired from the student investigations and to enrich their creativity through additional curricular presentations.

From the exploration of artistic influences, the teacher can move the students into future job opportunities related to a place they would chose to establish as their future "home." Having them identify the skills and education needed to move into a particular profession can lead to a review of the university programs available for the training. Teaching students to have entrepreneurial skills can also open the door to adventures in marketing their own inventions, various cultural food specialties, and/or artistic creations.

The opportunities to extend and enrich the curricular activities for Spanish-speaking GATE students expand as the teacher takes the lead from the students into their areas of interest and from the cultural heritage they bring with them. Use of parents, extended family members, and community members can also extend and enrich teaching activities if requested. In conclusion, having the Hispanic Spanish speaking student sets the stage for enriched cultural opportunities for all GATE students and teachers.

> What happens
> to the dream deferred?
> Does it dry up
> like a raisin in the sun?
>
> Langston Hughes

Assessing Migrant Students: How Does the Teacher Know Where to Begin?

by Bobbie Infelise

The school registered the child in second grade on the first day back after Christmas vacation. The parents had indicated that it was the first time their children had ever been to an American school. They had found work picking lettuce in the nearby fields. They were new to California, new to Salinas, and new to Frank Paul School. The migrant support liaison recorded the information provided by the mother and then walked the student to the teacher's room.

"Aquí está Josefina, su alumna nueva de Mejico."

"Bien venida en mi clase, Josefina. Espero que te gustaría estar con nosotros."

Another new challenge. The words echoed over and over in the teacher's mind. To make the child feel safe and welcome was her first thought. To find out what and how the child had learned while not in school would require more time and patience. Fortunately, all of the other migrant students had not yet returned from their visits home to Mexico, Calexico, Yuma, or wherever, so the class size would allow for more intimate group work.

"Vamos a ver como esta la memoria hoy," the teacher instructed the class. To try out a memory activity and watch the responses would serve as the first key to the child's ability to deal with information in a new setting.

"Piensa sobre ayer y explica a su compañero que hiziste antes de irte a la cama." Listening to the responses would provide a base line on the language used with peers as well as the kinds of details chosen to share. Keeping it in a small group setting would help provide a safety zone for the student. Would she share with a new person? What details would she be willing to share?

"Cada uno trata de hablar con una frase completa." Explain and model the expected behavior as a prompt to clarify the desired performance from all the students. Pass by each group and listen to the answers. Does her partner provide a good model and the peer support needed to elicit quality answers? Have each group record answers with the date for reference on the timeline of progress.

"Hoy vamos a practicar nuestra obra de los tres cerditos más tarde para dar la presentación a los padres. Por eso, se necesita hablar bién para que todos puedan entenderte bién." To evaluate communication skills grows increasingly more important with each year in school. How well will she be able to learn a new language? Can she maintain her Spanish and add English? Can she become fluent first in oral and then written communication? How does she communicate with others?

Proficiency demands extra effort constantly for both student and teacher. To provide rich, expressive vocabulary and sentence structure orally in the child's primary language for classroom practice with peers and then for adults requires additional time for dual language classes. To combine the oral language with written models requires support from other teachers, peers, cross-age tutors, and samples of literature available to stimulate children to read more, to learn more, and to move towards creating their own point of view in their communication skills.

"Vamos a jugar ahora. Aquí tengo cinco cositas differentes. Voy a quitar una cosa encima de la mesa y vamos a ver quien puede identificar la cosa perdida. Cierren los ojos, por favor. Muy bien. Ahora, todos abran los ojos y, sin hablar, traten de decidir que es la cosa perdida." Keeping track of details in our environment challenges every brain. Can she edit out unnecessary details? Which details lead her thoughts to a greater understanding of the information presented? Watch her reactions as the game begins. Take away an object of unusual color, then size, then shape. Watch and listen to her responses. Increase the complexity of the game in the small group setting and observe her responses. Let the students create their own game with their objects and ideas and time one another for efficiency in the identification process. Does she help create a game for the group? How does she use objects? Can she play the game better with pictures, words, musical notes, math facts, characters from the story, or sounds from tape recorder?

"Ahora, vamos a ver como podemos

practicar a evaluar como son cosas similares o parecidas. Vamos a ver porque cada uno aquí debe estar en un grupo u otro." All students with shoelaces are chosen to stand in one group while those without, are chosen for the second group. Can she figure out the common characteristic? As the task moves to having the students select the characteristic for the groups, can she move into a leadership role? In which areas of math, language arts, history, science, health, the arts, and/or interpersonal relationships with peers and adults can she identify the criteria for the grouping used in the activity? What relational thinking does she use? Is she able to use transformations of information and if so how?

"Ahora, en cada grupo, el jefe va a explicar el proceso de llegar a saber cuantas galletas yo necesita hoy para dar dos a cada uno en la clase." Does she understand the process and can she explain it to others? Evaluate those lifelong skills that help lead students to new challenges when done well.

"¿Quien tiene el número exacto que yo necesito hoy para dar dos galletas a cada uno en esta clase? Levanta la mano si lo tiene escrito en su cuaderno para enseñarnos." Does she find that one right answer? How is her concentration and precision? Knowing and using the process for arriving at that answer rapidly provides continuous rewards in school settings. Does she use a different process to arrive at the correct answer? How creative is the process used?

"Ahora, imaginen el mundo del futuro y crea un producto nuevo para limpiar tu casa. Recuerda bien, que en este mundo del futuro, no hay productos de liquidos, porque no hay ni una gota de agua. Puedes hacer un dibujo de tu producto o hacer un anuncio de televisión para demostrar tu producto." If provided an opportunity for creativity, what is her response? Does she risk producing an individualized perspective?

The first day of second grade for Josefina came to an end. The drawing of the vacuum cleaner, labeled as "Mi vaporizadora supersónica," had caught the attention of the other students. Thick black lines outlined a bright red machine in sharp contrast with modern blue furniture in her vision of the living room of tomorrow. She had added dust-like details being captured in a yellow flash by the nozzle. Her shyness with her partner, like the dust, had begun to vanish. Her willingness to risk participating in the large group and her reasons for her choices had begun to emerge in her conversations during the activities. The teacher reviewed the events of the day and pulled out Josefina's migrant MSRTS form. In the top left corner in red ink, she carefully printed: Refer for GATE.

I am the fire

I am the fire
I am to bear
Because I roam everywhere
My burning blazes
They scorch up grazes
Where cows and goats will roam

And when I burn so heavily
I keep on going steadily
People try oh so hard
To keep me off their boulevard
With million dollar homes

My friend the wind
Helps me spin
My foe the fire chief
Tries to make me brief
With water mixed with foam

It is homes I devour
And even a tower
I can leave a trail of smoke
But before a frog can croak
You're homeless and alone

by Sean Skelly and Zachary Joe,
fourth graders
Edward Kemble Elementary School,
Sacramento
Written in response to the
devastating Oakland Hills fire.

Students with Promising Academic and Reasoning Capabilities (SPARC)

by Cynthia Rathwick

Fresno USD has had an early intervention program offering a head start for college graduation to economically limited students for several years. The SPARC Program for grades 1-6 provides highly capable, culturally diverse/economically-limited students with opportunities to develop the goals, values and skills necessary for long-range school and life success. Strong self-esteem, self-respect, effective communication techniques, critical thinking abilities, and leadership skills necessary for becoming responsible, contributing citizens are the heart of the SPARC Program. This outstanding educational experience takes place in the student's own neighborhood school.

Many of these students are bright, creative, and have the potential for outstanding analytical and divergent thinking, problem -solving, and high academic success. It is difficult for the classroom teacher to address the special needs of these students in the consolidated Chapter I classroom. While such bright students have the potential to respond to challenges, many of these young people may not, at present, have the levels of skills necessary to compete in the district's rigorous gifted and talented elementary magnet. This does not mean that they should be deprived of the opportunity to receive an enriched program.

In spite of the scarcity of newspapers and magazines in the home and the frequent lack of opportunities for creative exploration, these students manage to maintain an above-average learning record during the first few years at school. In later elementary and high school years, however, their lack of enrichment catches up with them and they find that they cannot compete with the rest of the student population when they sit for examinations and are responsible for multiple assignments.

In the SPARC Program a large portion of class time is devoted to the development of creative and critical thinking skills, using the cooperative learning model with trained instructors teaching in their area of expertise. The program's learning environment is chosen by the principal and faculty to fit the operational and educational plan of the school.

Parent education is an important component to the students' success. The parents of the students are special too; they are willing to learn more about their children's education and are receptive to special opportunities for these young people. Efforts to reach more Hispanic parents through the use of the media has resulted in an excellent response and enthusiasm from the targeted population.

Thus, SPARC espouses aggressive early intervention. We can choose not to act and allow the present trend to continue, or we can choose an aggressive, early approach to change the negative statistics of high school and college-bound, culturally diverse/economically-limited students.

We must treat these students as tomorrow's contributing citizens and allow them to grasp the fact that if they work hard enough, they can reach their goals. They need hands-on materials to expose them to new concepts and less filling-in of blanks. They are capable of handling the basic curriculum in less time than the average child in a Chapter I school. These students require an appropriate learning environment, which is as different from the norm as the desired results desired are different from what present statistics reveal.

This type of intervention will positively affect real measures of predicted college success, including current scores on national and standardized tests, such as the Preliminary Scholastic Aptitude Test (PSAT), the Scholastic Aptitude Test (SAT), Advanced Placement Tests (AP), the College Level English (CLEP), and the International Baccalaureate exam (IB). By improving the students' abilities, we can help prevent their dropping out in high school and their backing away from college.

These children also need exposure to multicultural fine arts, music, literature, and language. Children without roots are aimless and lack a stable foundation on which to add a second culture. They need to increase their native vocabulary, while learning their second tongue. They need exposure to world literature, current world studies, advanced mathematics, as well as American culture and values.

They need an enhanced perception of their own learning abilities in order to develop self-confidence. Opportunities for interaction with intellectual peers can develop the personal strength needed to deal with the typical problems of growing up – coping with teasing and school/home and boy/girl pressures. Peer counseling has proven beneficial as has leadership training.

Fresno Unified School District is fortunate to have farsighted parents, school board members, administrators, and teachers who realize the need for establishing early intervention programs for our culturally-diverse/economically-limited students. The SPARC Program serves as a strong deterrent to the current dropout trend for hundreds of our most promising citizens.

Cynthia Rathwick has been the GATE Coordinator in Fresno USD for many years.

Barrier #2: We just don't have the right instruments to find those culturally different gifted kids. We know they're there; we see them in our classes. But they just don't test well and we don't want to have to go to a quota system.

In our craze to find the "right" test, we have sometimes forgotten that instead of looking for test scores we should be looking for giftedness. We know that giftedness is a cluster of behaviors and abilities, unique to each individual. Yet, if we depend solely on test scores, we are recognizing only those clusters of abilities and behaviors that are acceptable to school culture.

Let's stop moaning about diversity as a problem and recognize that diversity is at the very heart of what we're about. If we can't do that, we shouldn't be in the gifted business.

One of the important responsibilities of gifted programs is to take risks in the development of potential. We need to recognize that our clients will have actualized their abilities to varying degrees and some, seemingly, not at all. There is some talent yet to be nurtured and developed. We should be placing our bets on glimmers of exceptional ability and doing our best job of helping that ability evolve. Heavy reliance on tests alone suggests a desire to avoid risks – to work where our job is partially done for us and where we are more assured of success.

When we are in the mode of talent scouting and development, a variety of instruments become tools to assist in student assessment, along with other approaches, rather than one-shot litmus tests for giftedness. The scouting/development mode is a more individual approach. It is, therefore, inclusive of the culturally diverse and obviates the need for the one "right" test.

Barrier #3: We have to provide special training for teachers on understanding minorities so that they can learn how to identify and teach these students. Their backgrounds are so different and we have to be able to understand them. Then we have to create bridging programs for them so they won't fail!

There are two assumptions in the above statement which reflect problems in the program rather than in the student. The first assumption is that difference is alien to gifted programs. The second assumption is that programs are designed irrespective of who students are, and if the students fail, then they are not ready for the program or they are misidentified.

Staff who are feeling that diversity is foreign to gifted programs and who don't know how to deal with it have been misled or undertrained. *Diversity is the very nature of giftedness in groups of students.* Teachers not prepared to deal with diversity have not been appropriately trained. A gifted program that doesn't accommodate variety in student characteristics, even when cultural diversity is not an issue, is narrowing some student's chance to link potential to eventual production, an important outcome for students.

Good program planning should incorporate student assessment data at all levels. The design of the program should be based on who the students are as well as on other pertinent information, including data from the identification process. Ongoing assessment at the classroom level should provide the basis for curricular modification and refinement of individual programs. It's not a question of whether the student fits the program but whether the program matches student needs. This is fundamental to good gifted programs. If this is in place, then cultural diversity is accommodated without special interventions.

Barrier #4: These kids can't hack it; they're watering down the program. They don't belong.

This statement represents a view of gifted programs that is outdated and ineffectual in our present educational climate. Gifted programs can no longer simply serve those students who have actualized their talents to a level with which we are comfortable. Many gifted students from hitherto underrepresented groups have, for many reasons, not had opportunities to have their abilities recognized or developed. As these students are included in gifted programs, the weight of our responsibilities should shift as much toward developing giftedness in the underprepared as toward taking those with obvious skills to new heights. Both should be part of the measure of the effectiveness of our programs.

Again, teacher training is critical to change in this area. Teachers need to understand that preparedness or skill level are not necessarily synonymous with giftedness. Teaching gifted children requires not only having this understanding, but also knowing how to modify what we do in classrooms so that the underprepared gifted child functions as a vital participant. At the same time, we must recognize that gifted program outcomes need not

change because the population served becomes more culturally diverse. Being cognizant of the difference between ability and skill levels and being able to address each appropriately makes us better teachers of all gifted students.

As far as advocacy for the program is concerned, deliberately changing what we see our job to be and the way we do it can bring support to our programs from quarters which have, in the past, been silent or not-so-silent detractors of our pattern of excluding and not taking responsibility for all potentially gifted students.

What Should We Do?

This time, as we are considering the issue of cultural diversity in gifted programs, we have an opportunity to look reality squarely in the eye and take the best of the past and present into the future. There are pockets where valiant efforts being made. These can act as beacons if we choose to look and move in their direction, but by themselves they won't carry the day.

What then, must we do? First, we must shift our mental attitudes. Let's stop moaning about diversity as a problem and recognize that diversity is at the very heart of what we're about. If we can't do that, we shouldn't be in the gifted business.

Second, let's stop chasing after the one "right" instrument. Not that we shouldn't continually experiment and add new instruments to our tool kit, but let's use them to help us make more informed guesses about student potential and the clusters of behaviors we are observing in individuals.

Third, let's not magnify cultural differences. Yes, they exist; they should be welcomed and appreciated. It goes without saying that for all educators, not just those of the gifted, creating a climate in which diversity can flourish is and has always been essential. The fault is in us if we've not recognized this. Our task is to refocus on sound practices in gifted education which have in many cases been neglected – building our program services on the assessed needs of individual students. That's how we need to handle diversity, cultural or not.

Fourth, let's stop blaming the students who are underprepared. Instead, let's acknowledge that it's our job to be developers of potential. Teaching the gifted should never have meant working with a homogeneous population. One of our biggest challenges is working with talent in whatever stage of development we find it; this goes beyond the culture or language of a student.

Equity and excellence are what gifted programs stand for. We've fought, and continue to fight, for equality of educational opportunity for a minority whose educational needs require accommodation. By and large we've done a good job of this for some. Can't we have the conviction to use our creativity and leadership to do the same for all gifted students?

Elinor Ruth Smith is a consultant in gifted education. Her address is 3527 31st #1, San Diego, CA 92104.

Rosa Isela Perez is a Curriculum Resource Teacher with the Gifted and Talented Education Program in the San Diego City Schools.

Rainbow

Rain, thunder coming down
Sprinkles, drops all around
No time to play
On this cloudy day.
Lightning striking
No bugs biting
No time to use your hoe
Until there's a rainbow.

Chris Ser, Grade 6

Storms

Storms are scary
not very fun
You sit in the hallway
without any sun
It rains all morning
and all night
It scares little children
Till they're pure white
The same day a rainbow comes out
Then all the children scream and shout
What a beautiful day this will turn out.

Amanda Bradbury, Grade 6

Spring

As I was sitting on a stool,
I saw a little man,
A little man, a little man,
That looked like a tadpole.
I asked the man, What do you do?"
And he answered in a snap,
"I make the Spring come in this world,
And then take a long, long nap.
I make the towering trees,
Majestic mountains and restless seas.
To bloom right in front of your eyes,
To make the world a paradise.

Lois Dan, Grade 6

Poets are from Allen School in Garden Grove USD

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COMMUNICATOR

GATE: BLUEPRINT FOR EDUCATIONAL REFORM

by Valerie Terry Seaberg

Meeting the challenge of excellence in education, as our global society approaches the 21st century, requires a visionary transformation of the institution the world calls "school." Substantial alterations of our current models for schooling must be pursued, especially if our gifted youth are to successfully realize their abilities and talents within the educational system at large. Efforts to forward gifted education principles and philosophy as the blue print to inform and support the current educational reform movement in the United States are taking place through the ongoing work and direction of state departments of education, local school districts, and other organizations and individuals who advocate for this population.

For several years extensive and wide-ranging educational improvement initiatives have been undertaken across the United States. There has been a concerted effort to address the increasing demand for effective schooling for all students, including the gifted and talented. Initial reforms refined the existing elements of schools. Current reforms, however, look toward the fundamental alteration of schools as a strategy for strengthening the educational experience in novel and substantive ways. The "restructuring of schools" concept is emerging as a national response to the critical need for change. This movement is driven, in part, by the presence of many students in the educational spectrum whose needs are difficult to meet in traditional formats. This trend provides a timely opportunity for gifted education leaders to guide school improvement efforts and provide an integrated approach to systemic change, to change that results in a total school program responsive to student needs.

Significant general educational reform has been initiated in every state in recent years. Changes that schools are currently implementing are having an impact on our work in gifted and talented education. We are seeing both the potential and real effects of school improvement activities on gifted and talented programs throughout the country as a result of the ever widening commitment to educational reform. Some of the results are positive and can support gifted programs in our schools. Others may create impediments to progress. We must examine carefully the approach to take in order to leverage school improvement activities and reform initiatives to enhance and further programs for the gifted that serve them well. Assuming that the goal of educational reform is to improve the total educational system for the benefit of all students, the development, expansion, and improvement of programs for the gifted are legitimate purposes, and we have a responsibility and a logical role to play in the realization of this goal.

Historically, advocates for the gifted have pressed beyond the traditional boundaries of the school experience on behalf of gifted students. They promote alternative arrangements, structures, and approaches to learning content and the context in which it is taught. From their experience as policy makers and educators, they articulate the ways in which the traditional system must be transformed to meet the unique needs of the gifted and illustrate how such approaches can be blended with regular

Continued on page 23

PRESIDENT'S COLUMN

Sandra Kaplan

The implications of educational reforms for gifted education have been discussed widely. The impact of these reforms on gifted students themselves has been given less attention. As gifted programs respond to educational reforms, the curricular, instructional, and organizational dimensions of these programs change. Of concern is the degree to which gifted students are prepared to participate in gifted programs that have undergone change. Shifts in gifted programs demand that we simultaneously recognize the changing role of the students involved in these programs.

For example, the current emphasis in differentiated curriculum is the development of "big ideas" such as generalizations, theories, and principles, as well as on the expenditure of effort needed to meet sophisticated standards of performance. How have we assisted gifted students to recognize the importance of big ideas and the need to put forth effort in order to meet the curricular expectations held for them?

Contemporary gifted programs should provide academic and social opportunities wherein gifted students can engage in varied grouping patterns for different outcomes. How have gifted students been helped to understand the diverse means by which their needs and interests can be met when group compositions and structures change?

Evidence supports the idea that the context of the learning experience shapes the types and qualities of outcomes. Gifted students must be taught, both directly and indirectly, the expectations held for them throughout their involvement in a gifted program. Discussions should be a preface to differentiated educational experiences, as well as being an ongoing component of the program. Among the many topics to be addressed in discussions about the roles and expectations of students in gifted programs are:

- The importance and value of the outcomes of a differentiated curriculum
- Criteria to be applied to judging performance or products of learning
- Relationships of prerequisite knowledge and skills to current learning experiences
- Value of group and individual learning experiences
- Effects of leadership and followership, and interactions between these roles.

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Administrative Assistant, Sharon Mountford, 818/888-8846...FAX 818/888-6225

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CAG encourages all interested parties to submit articles for publication. All submissions will be given careful consideration. Photos and camera-ready art work are particularly desirable. Send all material with your name, add ss, and phone number to Jean Drum, *Communicator* Editor, 7822 Belgrave Avenue, Garden Grove, CA 92641, 714/892-1745.

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CALENDAR

June 12-14, 1992
Nevada Association for Gifted and Talented (NAGT)
Coming Together: New Beginnings for Gifted and Talented
Reno, Nevada 702/885-6355

June 18-19, 1992
Advanced Placement Teacher Workshops
Duke University, Durham, NC 919/683-1400

July 19-24, 1992
CONTAG '92, Eighth annual Iowa Summer Institute in Gifted Education
Univ. of Northern Iowa, Cedar Falls, IA 319/273-6855

July 20-31, 1992
Confratute at the University of Connecticut
Two weeks of intensive training in education of high potential students.
Storrs, Connecticut 203/486-4905

July 23-25, 1992
Supporting the Emotional Needs of Gifted (SENG)
11th Annual Conference
Minneapolis, MN 513/873-4300

August 3-7, 1992
Rimm Underachievement Institute
Pewaukee, Wisconsin 800/475-1118
Concurrent program for children, ages 6-18

August 7-12, 1992
Conference on Critical Thinking and Educational Reform
Cultivating the Reasoning Mind:
Teaching, Testing, Standards, and Assessment
Sonoma State University 707/664-2940

August 13-14, 1992
Advanced Placement Teacher Workshops
Tysons Corner, VA
(Sponsored by Duke University) 919/683-1400

October 2-4, 1992
CAG Teacher-Training Institute
Richardson Springs, Chico 818/888-8846

November 4-8, 1992
NAGC National Convention, ***Celebrating Diversity***
Bonaventure Hotel, Los Angeles, CA 202/785-4268

March 5-7, 1993
31st Annual CAG Conference,
From Theory into Practice: Orchestrating Excellence
San Jose, CA 818/888-8846

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Reminder...

The call for presenters for the 1993 CAG Conference in San Jose appeared in the May *Intercom*. If you would like to present, you are encouraged to apply. The deadline for applications is October 15, 1992.

Two, four, six, eight, can gifted kids cooperate?

Jean Drum

Well, of course they can, you say, huffily. We certainly aren't accepting any more of that out-of-date thinking that gifted kids are lost in their own worlds, think they're too smart to listen to anyone else's ideas, are nerdy kids with no social skills who don't know how to communicate with someone their own age. We know better than that!

But wait. Cooperate, as a word, has taken on a whole new life of its own in the education of the 90's. It has become "cooperative learning," a way of organizing a classroom, of getting information to students, of promoting learning. Educators, always looking for new and better ways to do their job, have taken up this idea with considerable enthusiasm. In-services abound. The "cooperative learning group" has become a feature of the classroom, with groups of children working together on a project and sharing ideas, each one doing part of the work and agreeing on the end product. In what might be called the "classic" configuration, a cooperative learning group consists of one high-achieving child, two average children, and one low-achieving child. In this kind of grouping it is thought that the high-achiever will both help and inspire the low-achiever, and that these four children among themselves can learn both more successfully and less stressfully than if they were working alone.

As with most new ideas, this one deserves consideration. Heaven knows we need all the new ideas we can get to be better educators. As with most new ideas, this one needs to be looked at from several different aspects, from both the point of view of the regular classroom teacher and the teacher of gifted students.

Several of the writers in this issue deal with some of the questions that teachers of gifted classes are asking about cooperative learning groups and how they can be successfully used to meet the needs of gifted students, and their ideas and experiences are very useful.

In a broader sense, it might be interesting to look at the basic concepts that underlie the application of cooperative learning theory and do some thinking about what kind of students we might expect to see if this style of teaching and learning gains widespread use.

The needs of the world of business has long influenced the educational establishment, and educators listen when business says, "Teach them to spell, to write a clear sentence, to reason and problem solve. We need people who can communicate, and it would be nice if they could make change, too." So we've concentrated on improving writing skills. We've emphasized critical thinking and other content and process areas in order to prepare students for career success. But what else do students need when they enter the working world? Can cooperative learning add something?

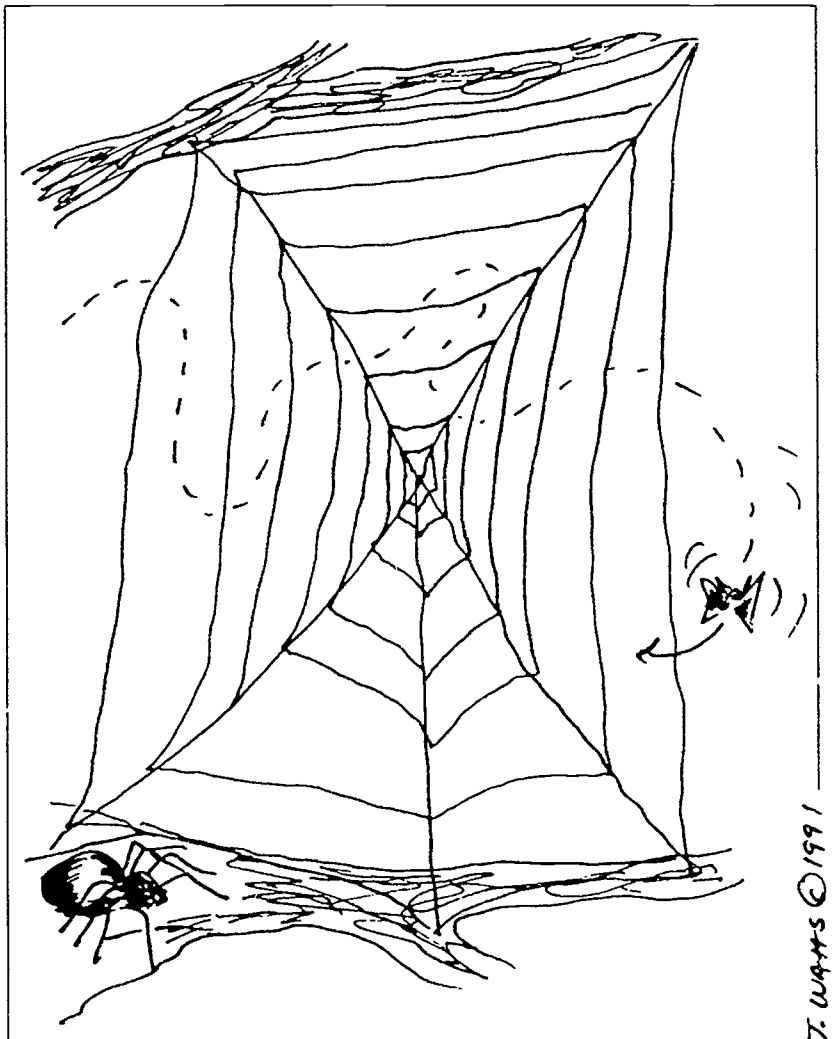
The American businessman prides himself on being a practical man, one who can get results. If it works, it has value. Businesses are being run by the brightest of the new MBA's, and they have a new 90's approach to organization. The old style top down organizational hierarchy isn't generally around any more. The "because the boss says so" approach is becoming a thing of the past. Consensus is the important word – decisions arrived at by negotiation and mutual agreement. This leads us to think that the ability to make consensus decisions and come up with a result, an ability which is emphasized in cooperative learning patterns, may well be a very valuable skill for students to learn. Compromise is also a word that figures prominently in business, and the "three C's" – cooperation, consensus, and compromise – work together in setting the basis for the operational patterns for today's business. It would seem then, that the skills and attitudes that students develop by experience in working in cooperative learning groups are likely to be useful as life skills.

There are some other considerations, however. The first one has been addressed by several articles in this issue, namely, the need to have gifted kids in cooperative learning groups in gifted programs, and not use this technique as an excuse to say that all we need is a cooperative learning group which will automatically meet the needs of all students. This is an attitude we must be alert to and be ready to answer.

The second consideration is the issue of responsibility. When group efforts result in

ON THE LIGHTER SIDE

by Jean Watts



Buzzy spent so much time finding the loopholes he failed to notice the system.

group decisions, individual responsibility can disappear into the woodwork. This may pose problems when we are talking about the development of children. If too many situations allow the child (or the adult, for that matter) to evade accepting responsibility for doing a fair share of the work, taking a fair share of the blame, or getting a fair share of the praise, we end up with the establishment of highly regrettable patterns of behavior which are not constructive. These can include "buck passing," blaming the other guy, and feeling that no one ever appreciates you or knows what you really did. Since teachers feel strongly the need to guide children into the acquisition of useful behavioral traits (what used to be called "strong character"), and since we also want children to acquire a good and realistic self concept, we must work out some way to develop both personal responsibility and group cooperation. That's a big order, but one without the other will never spell success.

Still a third area that educators in particular must deal with is the question of cultural diversity in group dynamics. Studies have shown that different cultures have different ways of handling social interaction. Some cultures reward self-effacement, others stress being outspoken. Different standards of what is considered courteous behavior are found. Girls and boys see their roles differently in different cultures. This means that teachers will have to be very sensitive to these differences in our multi-cultural schools and be careful and alert in guiding cooperative learning groups. In the increasingly international world of business, students will need to be prepared to deal with unfamiliar ways of thinking and reacting, and if they can begin this training in cooperative learning groups in school, they will reap the benefits of an enlarged outlook.

What do we want then? We want it all, of course. We want children with a well developed sense of personal responsibility, who do their share without coercion; children who listen to others' points of view and learn from them; and children who can combine their own ideas with the ideas of others and come up with the best possible solution. We want children who can both lead and follow. We want children to know that they don't always have to go it alone, but who can do so if it seems necessary. We want children who can feel satisfaction in a good team effort, but we also want them to have plenty of opportunities for a personal sense of success and triumph. An impossible order? Teachers are experts at the impossible. Can cooperative learning be a teaching technique that will help us achieve all of this? Yes, if it is used wisely and appropriately in our gifted programs.

Supporting GATE Parents – A Model Solution

Chico USD Parent Education Network

by Terrie Gray

For this month's column, I interviewed Helene Ginsberg, a parenting educator and mother of two who has been instrumental in forging district-sponsored support for parents of gifted students. Her interest in this area arises both from her personal needs as a parent and from her awareness of needs for support and education among GATE parents. Helene believes that parenting the gifted is similar to parenting the average child, but diverges from the typical in that parents of the gifted face unique issues which isolate them from other community parents. The Parent Education Network (PEN) seeks to ease isolation and to facilitate support. Although the network is in its infancy, it has received enthusiastic response; meetings have been well-attended by Chico parents of elementary and secondary potential-GATE and GATE-identified students.

It is interesting to note that in this period of educational economic austerity, Helene was able to secure funds from DATE – Drug and Alcohol Treatment Education – a substance abuse prevention program often tapped to support student at-risk populations. It should also be noted that district administrators, especially Barbara Conklin, Director of Educational Services, supported Helene's efforts with unabated enthusiasm.

Once the program was initiated, Helene mailed out surveys to GATE parents and found that they perceive their strongest needs to be:

- Understanding personality traits of gifted children
- Responding appropriately to inappropriate behavior
- Developing discipline skills
- Coping with children's boredom; building motivation
- Helping children develop both friends and independence
- Managing stress
- Supporting gifted girls
- Communicating with the school
- Managing issues with non-GATE siblings.

These needs serve as themes for the monthly meetings, which are divided between a first hour dedicated to a formal treatment of the thematic topic by a guest speaker or panel, and a second hour devoted to small group discussions focused on the evening's topic or related issues. While teachers are not required to attend the meetings, some have participated and have welcomed the opportunity to interact informally with the parent group.

"Take Charge Techniques for Parents" was the topic of January's meeting, and the principles of setting limits for arguers were among the most helpful ideas shared that night. Helene acknowledges that verbal sparring is common in our culture, but warns that it is a dangerous activity – a win-lose situation which undermines family strength. Gifted thinkers are generally very persistent and can become so skillful in arguing that they manipulate the parent to either "lose his cool" or give in to the child's demands. Helene encourages parents to promote discussion, and to accept ground rules. She refers to Sylvia Rimm's protocol (from *How to Parent so Children Will Learn*) and outlines this formula for success. When the child brings a request, the parent is to :

a. Listen carefully, and restate the request, clarifying if necessary.
b. Ask for the child's 3 or 4 best reasons why the request should be granted.
c. Say, "**I need to think this over and I will get back to you.**" Give a deadline, ranging from 5 minutes to 3 days, depending on the complexity of the request.
d. Carefully consider the issue.
e. Return to the child with a decision – if positive, endorse with enthusiasm, if negative, give reasons and be firm. If necessary, identify conditions necessary for approval. ("You may go, *if* you have your chores done.")

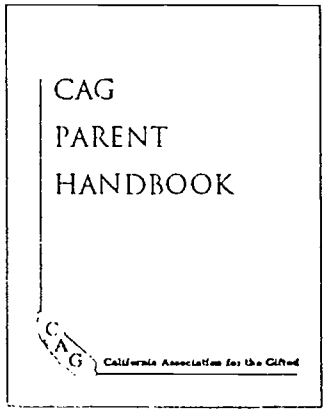
Helene encourages parents to exercise influence through reasoning together rather than dominating in power struggles and recom-

mends that they resist engaging in the seductive dance of argument. She asserts that regular parenting skills must be applied with great consistency and rigor, that we must be disciplined and clear in our communication. One of the greatest tools in the parenting "kit" is the word, "Nevertheless...," which is useful when a parent's decision is refuted with additional reasons. ("Sharon may have earned the right to go on the ski trip, and you may feel you should go too, nevertheless...") Without this essential firmness, children may believe that ground rules elsewhere don't apply to them. They are best served by a solid discipline tempered by a sense of humor, and infused with honest enjoyment of having them as part of the family.

Hopefully, the efforts of Helene and others in PEN and in the Chico Unified School District to establish this support network for parents of gifted students will inspire other parents to create similar groups. I'm reminded of an analogy a friend shared with me recently. The magnificent redwood trees tower hundreds of feet above the forest floor, yet have comparatively shallow roots. How is it that they can endure storms and stresses which topple other trees? The answer lies in the fact that redwoods tend to grow close together with roots from surrounding trees intertwined. By supporting each other, they survive. Likewise, we parents can support each other, so that our families and children grow strong and endure.

If you know of a model parent group you would like featured here, or have a favorite author on parenting you would like to review, please contact me at 461 Tiger Tail Road, Paradise, CA 95969; 916/877-5141.

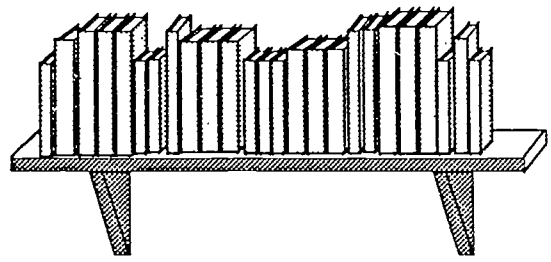
CAG Parent Handbook



All current members of CAG were sent a complimentary copy of our newest publication, the *CAG Parent Handbook*. There has been outstanding response to the book. If you are not a member, or if you would like to have additional copies, they may be purchased for $3.00 each from the CAG office. (Add $1.00 for tax and shipping on single copies.)

A new brochure listing all the current CAG publications is also available for distribution. Contact the CAG office for copies.

BOOK SHELF



The Joys and Challenges of Raising a Gifted Child

by Susan Golant
Prentice Hall Press, New York, N.Y. 223 pages.
Reviewed by Elaine Wiener

Susan Golant's *The Joys and Challenges of Raising A Gifted Child* is another successful attempt to compile much of the knowledge floating in and out of our lives about how to "do right" by our gifted children.

If you are a parent or an educator new to gifted education and do not wish to devote your life to researching this subject, read this book! If you are a seasoned educator and would like to review your own knowledge, read this book and refurbish.

Susan Golant provides a "pragmatic road map of hurdles" to raising a gifted child. However, before telling the reader "how to" and "where to," she educates. By the time you finish reading, you've acquired some history, some research, and some anecdotal information – and all without pedantic pain. Her suggestions are clearly stated, very specific, and best of all they represent many authors' opinions. An example of this is the list of suggestions for dealing with perfectionism.

Golant is very open and very personal about her experiences. This may provide a warmth and intimacy for parents searching for solutions. It may also detract from the professional tone an educator might prefer. Do not be misguided. Golant is very knowledgeable and may have chosen a less formal format to make needed connections for those who may be desperate for answers.

This book is an appropriate addition to the libraries of parents, novice educators, afficionados of gifted education, and old timers who want to see where they've been.

VIEW FROM SACRAMENTO

by Barbara Brandes

It is in a solemn mood that I send you greetings from Sacramento. Every day the state budget crisis seems to worsen. I can barely remember the time when we weren't going through budget cuts – 10 percent, 15 percent, 20 percent. I know that the consequences in many districts have been devastating for GATE and for so many other programs and services. In Sacramento City Schools, where my daughter is in school, the local board recently cut virtually all counseling positions, the security force, librarians, and others. The high school students walked out in protest over the loss of counselors, who often are the only real connection with an adult that students make at school.

As of this writing I can't begin to forecast how things will turn out as the Legislature grapples with the budget debacle. GATE funds seem to be as secure as anything in the budget, and I expect them to remain on a status quo basis. But this is small comfort as many districts teeter on the edge of bankruptcy.

Those of us who have dedicated our careers to public education have learned to find hope even in the toughest times. The irony during this time of crisis is that so many positive things really are happening. Once we get beyond this terrible recession these positive trends will become springboards for a new era of progress for us. I'd like to point out a few positive trends that I see.

1. A New National Emphasis on Excellence

Much of the very good work that has been made possible by the federal Jacob Javits Gifted and Talented Students Education Program is starting to bear fruit. In addition to the many fine projects that have been made possible by the federal grants, the U.S. Department of Education and a National Steering Committee have been hard at work on a new national report on gifted and talented education to be released next fall. This report will signal a new emphasis on academic excellence at the federal level and will strengthen programs for the gifted in the states. Some of you had a chance to see the teleconference on April 27, broadcast from the Los Angeles County Office of Education, at which we hosted a three-hour discussion of national trends in gifted education. If you missed the teleconference and would like to see a tape, call our office at 916/322-5016 to find out how.

2. Performance-based Assessment

A massive effort is under way at the national level to reshape student assessment so that it does a much better job of measuring what students know and are able to do. This good work has been engendered by the national education goals for the year 2000 which call for making U.S. students once again competitive with students in the other developed nations. Right here in California the work in progress to design the new assessment system to replace CAP tests is likely to become the new state-of-the-art in testing. The most encouraging part of this for GATE is that the new assessment system will be based on varying standards or levels of performance. This is the antithesis of a minimum competency type of assessment.

3. Broader Support for Curriculum Differentiation

The need for curriculum differentiation is gaining much wider recognition. Once you get consensus that education should be outcome-based and organized around helping students meet high standards, it becomes clear that students will meet these standards at different times and in different ways. There is much work to be done to help people understand how to put these ideas into practice. I have been encouraged by the positive feedback in our two-day staff development sessions on curriculum differentiation. We're also at work on another two-day session on service models for advanced learners.

I wish all of you the best over the summer. We must stay hopeful. There is so much that needs to be done. Those of us is gifted education can help lead the way.

Barbara Brandes is the Administrator of the High School Education Office which oversees GATE programs at the California Department of Education.

NRC G/T

Cooperative Learning and the Academically Talented Student: Executive Summary

by Ann Robinson

Cooperative learning has been recommended as effective in most school subjects across various groups of students measured on several cognitive and affective outcomes. However, controversy has arisen over the use of cooperative learning with academically talented students. The general research base on cooperative learning is extensive; over two hundred studies have been summarized by three research syntheses (Johnson, Maruyama, Johnson, Nelson, & Skon, 1981; Johnson, Johnson, & Maruyama, 1983; Slavin, 1990b). In contrast, the research base on cooperative learning, as it relates to gifted or academically talented students, is very limited (Robinson, 1990; Slavin, 1990a).

For example, a computer search of the PSYCHINFO data base from its inception in 1967 to September 1991 resulted in only two empirical studies which specifically examined the effects of cooperative learning on identified talented students. One study included 14 gifted elementary students (Smith, Johnson, & Johnson, 1982); the second, 48 "high ability" high school seniors and college freshmen attending a summer program (Johnson, Johnson, Stanne, & Garibaldi, 1990).

Despite the lack of attention to talented students in the literature, teachers and school administrators have been required to make instructional decisions about cooperative learning which affect academically talented students. Unfortunately, the research literature has been vulnerable to overgeneralization. Definitions of cooperative learning have been blurred recently to include other forms of small group or social learning like synectics or role playing (Bellanca & Fogarty, 1991; Joyce, 1991; Joyce & Weil, 1986). More substantively, several weaknesses in the research base on cooperative learning, as it relates to academically talented students, have been identified (Robinson, 1990). By examining specific cooperative learning models, reviewing their empirical literature, and noting the distinguishing features of each model, it is possible to acquire a more thorough understanding of the ways this research on cooperative learning should guide practice for academically talented students.

Cooperative Learning: A Definition

Cooperative learning is a set of instructional strategies "which employ(s) small teams of pupils to promote peer interaction and cooperation for studying academic subjects" (Sharan, 1980, p. 242). Students must work together to accomplish a common goal or to receive a common reward. Cooperative learning models recommend heterogeneous ability or achievement grouping strategies for the bulk of the instructional time. Most of the models include explicit guidelines for group composition in which a range of high, medium, and low achieving students is to be placed in each cooperative group (Johnson, Johnson, & Holubec, 1990; Slavin, 1980). Other cooperative models are less directive about the range of achievement in the groups, but do assume and encourage heterogeneity (Aronson, Blaney, Stephan, Sikes, & Snapp, 1978; Burns, 1987; Sharan & Sharan, 1976). Finally, peer tutoring or partner teaching is often a component of cooperative learning models. Aronson's Jigsaw, Teams-Games-Tournament (TGT), Student Teams Achievement Divisions (STAD), and Cooperative Integrated Reading and Composition (CIRC) explicitly include students tutoring one another within small groups. Although peer tutoring may consist of pairs of students who tutor or teach one another different materials, cooperative learning most often implies that students collaborate in groups larger than two and that they learn the *same* materials (Slavin, Leavey, & Madden, 1984, p. 410).

Common Models of Cooperative Learning

The most widely known models of cooperative learning were developed by three groups of advocates: (1) Slavin and associates, (2) the Johnsons, and (3) the Sharans and S. Kagan. Sharan and Sharan and Kagan do not collaborate directly, but both have developed group investigation types of cooperative learning models. Differences among these models include their relative emphasis on competition

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among the small groups, the use of external rewards, group versus individual grading practices, and general versus specific subject matter learning.

Teams-Games-Tournament (TGT)

TGT, originally developed by Edwards and De Vries (1972), is a generic strategy used in any subject matter area. Students are placed in four member heterogeneous teams. They receive a teacher directed lesson, help one another master the material, and compete in weekly tournaments with others of similar achievement (Slavin, 1986). Despite the temporary grouping of students by achievement level for tournaments in TGT, the lessons presented to the students, the materials completed by them, and the pace of instruction are the same for all students in the class. Worksheets are the primary instructional materials used in TGT. Slavin (1991) noted that TGT is best suited to basic skill instruction.

Student Teams Achievement Divisions (STAD)

STAD is a generic strategy used in any subject matter area. According to Slavin (1986), STAD works best with material that has single, correct answers and is most likely to be used in mathematics computation, spelling, language usage, and mechanics. As in TGT, students are placed in four member heterogeneous groups for teacher directed instruction and for assisting one another in mastering the basic material. The tournaments used in TGT are replaced with individually administered quizzes in which students do not assist one another. STAD like TGT was developed to provide grade level instruction in basic skill areas at the same general pace for all students.

Team Accelerated Instruction (TAI)

TAI (later renamed Team Assisted Individualization) was developed for pre-algebra mathematics instruction in grades three through six (Slavin, 1986). It includes specific TAI instructional materials on basic mathematics operations and topics: addition, subtraction, multiplication, division, numeration, fractions, decimals, ratio, percent, statistics, and algebra. Students are assigned to four or five member heterogeneous teams, are pretested, and enter the curriculum at the point designated by their pretest performance. They work through curriculum units which contain a guidepage reviewing the concepts, skill practice pages, formative quizzes, a 15-item unit test, and answer pages so that a student monitor may score the test. All students also take mathematics facts tests twice a week. The management functions of securing materials, checking student papers, and scoring tests are the responsibility of the students. After each three-week period of individualized instruction, the teacher conducts group-paced instruction for a week.

Cooperative Integrated Reading and Composition (CIRC)

CIRC was developed for grade level reading and writing instruction in the elementary grades. Research studies have been reported for grades 3-4 and grades 2-6 (Stevens, Madden, Slavin, & Farnish, 1987; Stevens, Slavin, & Farnish, 1991). Instruction is primarily based on basal readers and involves direct instruction in reading comprehension, integrated writing, and language arts using a writing process approach. Heterogeneous teams are composed of members of at least two different reading groups who read to one another, answer questions about the story, practice spelling and vocabulary words, and write on a topic related to the basal story. Team members receive points based on individual performance on quizzes and composition which are "added" to produce a team score. Achievement criteria are specified; teams that meet the criteria receive certificates.

Circles of Learning or Learning Together

Johnson and Johnson have emphasized group process in their generic model characterized by explicit and sustained teaching of structured social skills. Most of the research by the developers and their associates compared the cooperative goal structure (in which groups work together) with a competitive condition (in which teams or individuals compete with one another) and with an individualistic condition (in which students work alone on material). Heterogeneous groups of two to six students with maximum variation in levels of achievement are recommended. In addition, the Johnsons have suggested unmotivated students be placed in groups with on-task students. In some cases, students are permitted to work together to complete a single worksheet or product for a group grade (Johnson, Johnson, & Holubec, 1990).

Cooperative Controversy

Cooperative Controversy, also developed by the Johnsons, relies on the constructive use of conflict to increase learning (Johnson, Johnson, & Holubec, 1990). Heterogeneous groups

Ann Robinson is Associate Professor in the Department of Teacher Education and the Center for Research on Teaching and Learning at the University of Arkansas at Little Rock.

of four students are given materials about a controversial topic—for example, the hunting of wolves in Northern Minnesota—and asked to debate. Two students take one side of the controversial issue, the remaining two team members argue the opposite view. Then the two pairs of students switch sides and argue the opposite points of view. Presumably, the same kinds of group products and group grades would be possible in this form of cooperative learning as in the original Circles of Learning or Learning Together.

Jigsaw and Jigsaw II

The Jigsaw models were developed for narrative materials in the core content areas like social studies, science, literature, and other school subjects in which the goal is to learn concepts rather than skills (Aronson et al. 1978; Slavin, 1986). Heterogeneous groups of students are given sections or chapters of material to read and teach "their topic" or a part of the text to others in their group. As is the case with TGT, STAD, Circles of Learning, and Cooperative Controversy, the Jigsaw models rely primarily on grade level texts and other printed materials.

Group Investigation

In contrast to the cooperative learning models which are largely structured around traditional texts and classroom materials, Group Investigation is an interest-based study of a topic selected by the teacher (Sharan & Sharan, 1976). Small groups of students select subtopics, develop and carry out a learning plan, and prepare a small group presentation for the entire class. Teachers and students evaluate group and individual contributions. Students work on group products, give group presentations, and receive group evaluations. However, individual achievement is assessed through examinations as well. Presumably, students have access to any materials, including reference materials relevant to their subtopic. The most extensive research study on Group Investigation was conducted in Israel with problems in history and geography (Sharan & Shachar, 1988).

Co-op Co-op and Cooperative Structures

Like Group Investigation, Co-op Co-op is based on heterogeneous small groups studying a subtopic as part of a whole class investigation. Co-op Co-op encourages library research, interviewing, original data gathering, and creative products. Students are teacher and self evaluated on team presentations, their written products, and on their contributions to the team. Kagan (1989/1990) has also encouraged the use of short term cooperative structures developed by other educators as well as himself. Two examples of these structural cooperative strategies are Think-Pair-Share and Numbered Heads Together, which are variations of group discussion. Few published studies are available on the short term cooperative activities or on Co-op Co-op.

Groups of Four

Developed for elementary mathematics, Groups of Four is a collection of cooperative problem solving activities. In one study conducted by its originator, this approach resulted in improved problem-solving skills for students when compared with the traditional classroom (Burns, 1981). The author does not propose the model as a comprehensive mathematics curriculum. According to Slavin (1986), the research evidence on this application of cooperative learning has not been extensive or promising.

Descubrimiento or Finding Out

Descubrimiento was developed as a hands-on elementary science program for the bilingual classroom. Students work together on experiments to discover scientific concepts and principles. Materials are printed in Spanish and English (De Avila & Duncan, 1980) and an implementation manual has been developed (Navarette, Cohen, De Avila, Benton, Lotan, & Parchment, 1985). Little published research is currently available on Descubrimiento.

Applying Cooperative Learning Research to Academically Talented Students

Cooperative learning research has reported positive effects in cross-ethnic relationships (Johnson & Johnson, 1981; Warring, D. Johnson, Maruyama, & R. Johnson, 1985), in acceptance and achievement of students with intellectual or emotional handicaps (Johnson & Johnson, 1982; Salend & Sonnenschein, 1989; Slavin, 1984), and in basic skills achievement in the academic content areas (Slavin, 1980; Slavin, 1984). In a recent review, Slavin (1991) also listed improved self-esteem and self-concept as outcomes for those cooperative models he helped to develop. These are significant outcomes. However, the advantages of cooperative learning for academically talented students are tempered by the nature of the re-

search base on cooperative learning and by the ways it has been translated into practice.

Problems of Definition and Sampling

Very few studies have been conducted with identified gifted or high ability students. Some studies have investigated high achieving students, but with limited information about their prior achievement. For example, high achieving may be defined by single measures of teacher-made classroom or basic skills standardized tests (Lucker, Rosenfield, Sikes, & Aronson, 1976; Webb, 1982) or by teacher judgment (Johnson & Johnson, 1981; Johnson, Johnson, Tiffany, & Zaidman, 1983). In one study, students were designated as high achieving if they scored above the median on a teacher constructed mathematics pretest (Mervasch, 1991). "High ability" as defined by single achievement measures of basic skills batteries, teacher constructed placement tests, or teacher judgment alone should not be used interchangeably with giftedness. The indicators are too crude to give us a "picture" of the kinds of students found in the high achieving groups and are difficult to generalize to the gifted.

Weak Comparisons

The most misleading characteristic of the research base on cooperative learning, as it relates to academically talented students, is its reliance on weak treatment comparisons. Specifically, these weak comparisons include: (1) the use of the traditional classroom as the control treatment, and (2) the use of an individualistic comparison which specifically discourages student discussion. In a recent review, Slavin (1991) commented that of the 67 cooperative learning studies which measured effects of student achievement all "compared the effects of cooperative learning to those of traditionally taught control groups" (p. 76). In most cases, achievement was defined as basic skills outcomes.

In the studies which compared cooperative with individualistic learning, students in cooperative groups were encouraged to communicate with one another and in some cases were permitted to turn in one assignment for the group. In the individualistic condition, students were directed not to talk and were required to complete the assignment on their own (Johnson, Johnson, & Stanne, 1985). In some cases, students in groups and students working *alone* were compared on the nature and frequency of their talk.

To summarize, the effects of cooperative learning on academically talented students are difficult to assess. First, they are not the population of interest. Few studies have explicitly identified them, described them adequately in the sample, or analyzed outcomes clearly. Second, the comparisons made in the literature are limited by the selection of the traditional classroom rather than educational provisions more suited to academically talented students as the control and by the individualistic comparison implemented as solitary seat work. In other words, cooperative learning in heterogeneous classrooms has not been compared with educational treatments of choice for academically talented students.

Issues in Practice

The weakness in cooperative learning research, as it relates to academically talented students, is a correctable problem. Subsequent studies can be designed to identify academically talented students in the sample and to include an appropriate test of cooperative learning as compared to a well supported treatment for these students.

However, for decision makers to evaluate the use of cooperative learning with academically talented students, two issues must be addressed in practice: (1) curricular coverage and pacing and (2) group work and motivation.

Curricular Coverage and Pacing

In the classroom, time is a fixed resource. If students are organized in cooperative learning groups studying grade level material for the majority of their school day at the pace of a heterogeneous group, their opportunity to master advanced material at their own pace is restricted. A substantial body of work over the past thirty years indicates that various kinds of acceleration produce consistent and positive achievement gains for talented students (Daurio, 1979; Kulik & Kulik, 1984, 1991; Rogers, 1991; Shore, Cornell, Robinson, & Ward, 1991). In fact, a recent study by Reis and Purcell (in press) indicates that elementary teachers report between 39-49 % of the curriculum in mathematics and 36-54% of the curriculum in language arts could be eliminated because gifted students demonstrated mastery of the material prior to instruction. Unfortunately, much of the educational community is wary of acceleration for academically talented students (Southern & Jones, 1991). Contrast the reluctance of educators to admit that curricular ex-

Five Recommendations

- Cooperative learning in the heterogeneous classroom should not be substituted for specialized programs and services for academically talented students.
- If a school is committed to cooperative learning, models which encourage access to materials beyond grade level are preferable for academically talented students.
- If a school is committed to cooperative learning, models which permit flexible pacing are preferable for academically talented students.
- If a school is committed to cooperative learning, student achievement disparities within the group should not be too severe.
- Academically talented students should be provided with opportunities for autonomy and individual pursuits during the school day.

posure has positive effects for academically talented students to support for the well-received argument on behalf of students confined to low tracks in public schools. It has been argued that one of the contributing factors to the low achievement of low achievers is the absence of challenging curricular fare (Oakes & Lipton, 1990). It is the argument of curricular access. If students are given the opportunity to learn from a challenging curriculum, very often they will do so. This logic applies to academically talented as well as to low achieving students. To restrict access to appropriately advanced curriculum and to retard the rate at which academically talented students move through that curriculum by organizing instruction in grade level cooperative learning groups for the majority of the school day is not defensible and may result in boredom and repetition for these students.

Group Work and Motivation

The success of group work depends in part on the availability of a student who understands the material being studied and who will explain the material to others if asked to do so (Bennett & Cass, 1988; Petersen, Janicki, & Swing, 1981; Webb, 1982). Although students who explain material to others benefit from this experience if the material is new to them as well, too many repeated explanations may result in constant review. Cooperative learning groups must be structured to eliminate the "free rider" effect that allows some students to carry the instructional burden and others not to contribute to the common goal. Two recent studies indicate that talented students perceive unequal responsibility and failure of teammates to contribute in heterogeneous groups as unfair and frustrating (Clinkenbeard, 1991; Matthews, in preparation).

Recommendations for Using Cooperative Learning with Academically Talented Students

Due to the lack of attention to academically talented students in the cooperative learning literature, research on educational practices effective with talented students also forms the basis for the recommendations which follow. Where noted, the recommendations are also based on an analysis of the various cooperative learning models along dimensions considered important for academically talented students.

Recommendation one:

Cooperative learning in the heterogeneous classroom should not be substituted for specialized programs and services for academically talented students.

Discussion: Cooperative learning models have not been compared to special educational programs and services for academically talented students in the research literature. Thus, no clear superiority for cooperative learning in the heterogeneous classroom over specialized programs and services for academically talented students has been established. Even advocates of cooperative learning have acknowledged the need for separate course offerings for academically talented students (McPartland & Slavin, 1990).

Recommendation two:

If a school is committed to cooperative learning, models which encourage access to materials beyond grade level are preferable for academically talented students.

Discussion: Cooperative learning models like Teams-Games-Tournaments (TGT), Students Teams Achievement Division (STAD), and Jigsaw which primarily use prepared grade level materials limit curricular access for academically talented students. Since Group Investigation encourages the use of reference materials, library and media resources, and other kinds of information gathering, this model may be less likely to restrict academically talented students to grade level curriculum.

Recommendation three:

If a school is committed to cooperative learning, models which permit flexible pacing are preferable for academically talented students.

Discussion: This recommendation is related to the effectiveness of various forms of acceleration with academically talented students. In general, cooperative learning models require students to study the same materials and to master material at the group pace. However, Group Investigation allows students to research some information on their own. During such opportunities, presumably academically talented students would be able to read and study self-selected materials at their own pace. In mathematics, the Team Accelerated Instruction (TAI) model at the elementary level has some flexible pacing components in its individualized sequence. However, TAI may need to be combined with cross-grade grouping to accommodate mathematically talented students.

Recommendation four:

If a school is committed to cooperative learning, student achievement disparities within the group should not be too severe.

Discussion: When high, medium, and low achieving students are grouped together, high achieving students explain material to low achieving students, and medium achieving students have fewer opportunities for participation. Academically talented students report frustration when working in mixed ability groups with team members who are unwilling to contribute to the group goal. Placing students who are similar in achievement together continues to allow for heterogeneity in terms of ethnicity and gender in the groups. Slavin (1990) has suggested cooperative learning might be used with groups of high achieving students.

Recommendation five:

Academically talented students should be provided with opportunities for autonomy and individual pursuits during the school day.

Discussion: This recommendation targets educators who are sufficiently committed to group models that they may overuse cooperative learning. Academically talented students also need opportunities for autonomy and self-directed learning. Academically talented students voice a preference for independent (in contrast to individualistic) learning experiences and can profit from solitary absorption with a task or topic. Providing opportunities for independent study under competent supervision of the teacher is a supportable practice for academically talented students.

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Scapegoating the Gifted: The New National Sport

by Linda Kreger Silverman

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Advocating for the gifted has always been risky business in American society, as if it were somehow anti-American to suggest that gifted children might have special needs. Professionals in few other fields fear discussing what they do for a living at cocktail parties. Parents of no other special education population are derided as are parents of gifted children. Having observed the ebb and flow of concern for the gifted for the last 30 years, I have never seen such a sweeping tide of animosity toward the gifted and gifted educators as in the last several months. American education has found a scapegoat for all its ills and will not be satisfied until gifted education has been exterminated and its advocates silenced.

This statement may sound outrageous, but I can document recent cases of persecution of state gifted/talented consultants, coordinators of gifted programs, teachers of the gifted, parents, and gifted children. Throughout the United States, budgets for gifted education have been slashed, self-contained classes and pull-out programs have been eliminated, teacher certification has been lost, gifted coordinators have been demoted to regular classroom positions, state consultants have been harassed and forced out, teachers who support gifted education dare not speak for fear of losing their jobs, administrators find it politically untenable to continue supporting provisions for the gifted, and parents are bewildered by this sudden change of heart.

Gifted education is on the verge of extinction in the United States unless something is done immediately to counter the trend. Parents and educators of the gifted have worked too hard for too many years to stand by and watch every gain in serving the gifted get wiped out in a single year. This is a call for action. As Mary Toll (1990) suggests, the time for passive advocacy has ended: in order to survive, we need warriors.

To what can we attribute this holocaust? Is it simply an artifact of tightened budgets? I think not. We have the funds to serve retarded children – to provide individual assessment and individual educational plans. If we had a mandate to serve the gifted, we would create the funding. We feel morally obligated to find the money to support that which we value. How did gifted children come to be so devalued in our society? Ironically, we've just gained national funding of exemplary programs in gifted education. So I do not believe that money is the real issue; it simply serves as a convenient smoke screen.

Is it our fear of "elitism"? When I learned this summer that the faculty of Harvard considers gifted "elitist," the meaning of "elitism" suddenly became very murky. There is not one shred of evidence that intellectual differences create elitist attitudes (Newland, 1976). Quite the contrary, the gifted in our country are the backbone of social reform and egalitarianism. The gifted care desperately about injustice. When they are placed in classes together, they do not come to the conclusion that they are "better than everyone else." Rather, they are humbled by finding peers who know more than they do (Hollingworth, 1930). They are deeply concerned with global issues. A nine-year-old boy I tested this summer in California picked fruit and vegetables all summer long and sold them in his neighborhood to collect food for the homeless. He initiated this project on his own because he felt he had to do something to help.

Elitism is, and always has been, rooted in socioeconomic differences, not intellectual differences. Scapegoating the gifted has been very effective in focusing attention away from the real issue. The wonder is that we haven't seen through the sham in all these years of false accusations. It is immediately apparent that eliminating programs for the gifted cannot eliminate the inequities in opportunity that exist between the haves and the have nots. When gifted programs are unavailable in the public schools, upper middle class families place their children in private schools or educate them at home. These options are not available to single parents, two-income families, and families with limited means. It is the talented poor who suffer the most when programs for the gifted are cut.

Giftedness is not an upper middle class plot. Dr. Rita Dickinson (1956), in her many years of research as a school psychologist for the Denver Public Schools, found giftedness equally distributed among all socioeconomic classes. The detection and nurturing of high abilities among the poor enables them to surmount their own poverty and help the plight of others.

Have we lost all this ground overnight because a better way to educate children has been discovered? We could be led to that assumption by the School Reform Movement. However, the leaders of this movement have shown no particular interest in the welfare and progress of the gifted. No evidence exists that cooperative learning in the regular classroom serves the gifted better than gifted education provisions. Of 295 studies of cooperative learning found in the literature, only 3 of them even mention the gifted, and the only study that reported specific findings about the gifted was limited to 14 of these students! (Robinson, 1990a)

Cooperative Learning

The blatant over-generalization that cooperative learning in the regular classroom has been "found" to be good for all students – including the gifted – is completely unfounded. Robert Slavin (1987), the major spokesperson for cooperative learning, specifically stated in his comprehensive review of the literature that gifted and special education classes had been purposely omitted from the research base.

Gifted and special education programs may be conceived of as one form of ability grouping, but they also involve many other changes in curriculum, class size, resources, and goals that **make them fundamentally different from comprehensive ability grouping plans.** (Slavin, 1987, p 297, emphasis added)

Also, in his response to Ann Robinson's critique, "Cooperation or Exploitation? The Argument against Cooperative Learning for Talented Students," (1990a) Slavin admits:

> *Dr. Robinson is certainly correct in saying that the research base for applications of cooperative learning to the truly gifted is weak. Knowing this area well, I'd characterize it as virtually nonexistent. (Slavin, 1990b, p 28)*

Yet, Slavin goes on to talk about the benefits of cooperative learning for "high achievers," as if high achievers and the gifted were synonymous. They are not. Robinson (1990a) points out in her article that "high achievers," as defined in the cooperative learning literature, includes 25 to 33 percent of the school population.

Herein lies one of the major flaws in reasoning about the gifted. Educators tend to think of the gifted as high achievers, and therefore, automatically benefiting from any type of school program. Many high achievers are, in fact, gifted; however, many are not. And many gifted students are high achievers; then again, many are not. Achievement is an environmentally induced phenomenon; therefore, having special programs for high achievers looks to many like "more advantages for the advantaged." Ability, however, is a broader concept, including retardation and giftedness, neither of which should be defined in terms of achievement. Programs for the retarded are not considered "elitist." They are considered necessary provisions to deal with inherent differences in learning rate and ability.

The range of differences in human development is so great that any one-size-fits-all curriculum, grouping strategy, or organizational scheme is easily seen as illogical. There are 15-year-olds who are learning self-feeding skills, and a 6 1/2-year-old who has completed the entire high school curriculum with extra credits. Gifted education and education for other groups with special needs is not tracking. Cooperative learning in the regular classroom was not designed for special educational groups. It is no more appropriate for the gifted student than it is for the retarded student.

The argument against ability grouping and tracking is perfectly justified for the mid-range of ability. The research seems to indicate that about 90% of the students learn best in mixed ability groups. But as children veer from the norm in either direction, their educational needs become increasingly more differentiated. A child three standard deviations below the norm (55 IQ) could not profit from placement in a cooperative learning group in the heterogeneous classroom; neither does a child three standard deviations above the norm (145 IQ).

While there is not one single study comparing the progress of gifted students in cooperative learning groups with their progress in any of several special education provisions (e.g., self-contained classes, pull-out programs, accelerated classes, Advanced Placement classes, self-selected independent research), there is ample research that ability grouping enhances learning and motivation for gifted

students (Feldhusen, 1989; Kulik and Kulik, 1990).

Slavin (1990a) condones acceleration in mathematics and reading, but suggests that gifted students are adequately served by heterogeneous cooperative learning experiences for such subjects as social studies. How do gifted students feel about cooperative learning in social studies? Here is an excerpt from a letter that Corinne, a 12 year-old eighth grader, wrote to her superintendent:

> *The method that is unsatisfactory is the cooperative learning program in my social studies class...In cooperative learning groups the person with the strongest personality and highest academic ability usually takes control of the group immediately. Teachers tend to put the faster learners with the slower ones to help them along. That is the exact purpose and problem with cooperative learning. The faster kids are suddenly responsible for everyone else....I believe that the advanced students are being slowed down drastically by this learning method. Not all kids want to learn, and I feel that cooperative learning puts the responsibility of making those people learn on advanced students...Just because there aren't many of us doesn't mean we don't have a right to learn. (Kearney, 1990, pp. 14-15)*

Not all kids want to learn, and I feel that cooperative learning puts the responsibility of making those people learn on advanced students

Exploitation of the gifted in order to bring up the lower end of the spectrum may sound "fair" to some, but bringing the top down does not bring the bottom up, and nothing is gained in the name of democracy by holding back our bright students. In our fierce desire for equality of opportunity for all, we are discriminating against children of high ability. No egalitarian goal is accomplished by forcing a child who reads at the sixth grade level to read a third grade reader (Silverman, 1989). It is criminal to force our brightest students into underachievement in order to motivate slower students. It is also dangerous.

While other countries are strengthening the curriculum of their brightest students, we are asking ours to serve as teachers' aides. Before they graduate from high school, all Soviet students take ten years of geometry, two years of calculus, five years of physics, five years of physical and economic geography and seven years of a foreign language. By comparison, only half our students take one year of geometry, and less than one-sixth take one year of physics. We waste two more years on arithmetic than any other country in the world (Wirszup, 1980, 1986). Wirszup has repeatedly testified in Congress that the current state of education is endangering our democracy.

If the research does not support the massive obliteration of programs for the gifted, then why has everyone jumped on the bandwagon and been so quick to get rid of gifted education? The scope of the attack is too great and too swift to be motivated by logic. The attitudes and behavior toward advocates of the gifted is too vitriolic to be budgetarily based. I believe that America needed a scapegoat, and the gifted were selected. In the perennial battle between egalitarianism and excellence in American education (Gardner, 1961), both have lost, and blind discrimination appears to have won.

What is to be done? Robinson's first recommendation is that we become informed that the "research base does not support the contention that cooperative learning is a substitute for special programs for the talented student. Resist such a policy." (1990b, p 35) Her last suggestion is as follows:

> *Finally, speak plainly on the issue of cooperative learning as therapy for socially maladjusted, talented students. The assumption that gifted children are more likely than others to have a variety of personal and social problems is not supported in the literature. Thus, the pill of cooperative learning may be prescribed for a perfectly healthy patient. (p 35)*

This is excellent advice, since at least half of these children – gifted girls – are already oversocialized at the expense of the recognition and development of their abilities (Kerr, 1985). They often prefer to help others rather than take on new challenges in learning. Cooperative learning only exacerbates their lack of risk-taking.

Cooperative learning does have a place within gifted education. It is an excellent strategy to employ in classes of gifted students, where there is often a very large range of abilities and interests—despite the common label of "gifted." It is also useful to allow gifted stu-

dents to form their own cooperative learning groups. "Hidden" gifted children are often chosen by other advanced students who recognize their special talents. If the brightest students in the group are learning something new, at as fast a pace as they can learn, then cooperative learning is being used appropriately. When this is not the case, the method is being misapplied.

Gifted children have no legal protection. We need a federal mandate to assure that they will be able to progress educationally at their own pace. Parents of handicapped children pressed for the legislation that now exists to protect these children. I believe that parents of gifted children must follow suit. Many teachers and administrators continue to support provisions for the gifted, but the opposition is so strong right now that visible advocacy within the school system is risky. Therefore, parents must take the lead in turning the tide. Parents who have fought to establish programs for their children must fight to preserve them or to re-establish them.

I do not believe that all the provisions for the gifted that have been hard won over the last two decades can be wiped out in a flash without a massive reaction. The whole movement has happened so quickly that parents have not yet mobilized to respond. But parents of the gifted will do whatever has to be done to reinstate provisions for their children. I only hope that policies that discriminate against the gifted and scapegoat their advocates are soon put to an end. Otherwise, I predict that parents will take legal action against the schools as their only recourse. However, through awareness of the symptoms of scapegoating and conscious efforts to prevent its continuation, these drastic measures can be avoided. The gifted deserve an appropriate education; they should not be punished for being advanced. They should be supported in developing their abilities to their fullest—for themselves and for society.

Linda Kreger Silverman is the director of the Gifted Child Development Center in Denver, CO.

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WHOLE LANGUAGE

To Parse or Not to Parse

by Leilani Baudoin and Madelyn Maragos

Recently I was introduced to Arnold, the octogenarian grandfather and former chemistry professor who had just moved from Maine to South Louisiana. As I passed the crayfish fettucini, at his family's dinner table, Arnold started to flirt with me. "To hear you speak, madam, is music to my ears," he declared. I assumed he alluded to my Cajun/Southern accent and blushed appropriately. He continued, "To hear the agreement of your subjects and predicates is delightful!"

My blush faded and I responded, "Well, I used to be a high school English teacher."

"As was my mother who taught me the beauty of the language. I'll bet you know what a predicate nominative is! Do you teach your students to parse sentences?"

I blushed again, this time embarrassed by my necessary answer, sure that Arnold would view it as a failing on my part. "Actually, there has been a movement in the last few years away from a purely analytical approach, such as diagramming sentences, to a more holistic treatment of teaching language," was my vague reply.

I felt awkward because the English teacher in me and the gifted teacher in me were not yet completely integrated with the recent Whole Language convert I had become. The English teacher was the one who enjoyed being an expert identifier of predicate nominatives and dependent clauses. The gifted teacher was the one who focused on providing a differentiated curriculum suited to the unique learning needs of the academically talented. The Whole Language convert was a neophyte who had had her traditional assumptions knocked out of kilter after participating in the National Writing Project. Arnold's attitude of elitist kinship between two language connoisseurs recalled my gifted supervisor's initial response to whole language as being appropriate for the regular classroom but not demanding enough for gifted students.

I disagree. Whole language is a grassroots movement started by teachers who felt the need to return to a more child-centered curriculum where the teachers and students take control of the learning. It is authentic learning not bogged down by curriculum guides, ditos, and workbook pages. Listening, speaking, reading, and writing are taught in context and developed in reading/writing workshops.

These 'workshops' or classroom laboratories are the major components of the whole language program. In reading workshop, the students act as adult readers do. They may choose pieces of literature and share them in various ways with other readers. Sharing might entail keeping a learning log, writing letters to peers or teachers about their selections, giving book talks, debating the author's meaning, etc. Their thoughts about their reading might be expressed orally or in writing, thereby employing "whole language": reading, writing, speaking, and listening.

Writing workshop allows students to become "real" writers. They choose topics, gather ideas, draft, get response from other writers, revise, and publish. Publishing might take the form of oral readings, bulletin board displays, hand-made books, songs, writing contest entries, or submission of manuscripts to professional publishers. In the workshop students talk, read, and write about writing. They again immerse themselves in a "whole" language experience.

Does a mature reader or professional writer have need to parse sentences? Is diagramming sentences as important as capturing thoughts for posterity or producing writing capable of influencing legislation which impacts upon our society's well-being?

I started to feel less guilty about my conversation with Arnold. My gifted students are capable of learning what a predicate nominative is and of locating one in a sentence. In fact, this type of simple analysis is often preferred by the gifted student unwilling to put in the effort required to develop his own voice as a writer. For me to include predicate nominatives as part of a "mini-lesson" in writing workshop, however, I must be convinced this is a skill writers need. Then I would demonstrate the concept in a five minute presentation using examples from my students' writing. Because they are gifted, they have absorbed patterns of language from their reading and listening which

I, as teacher, need only to reinforce in the context of their writing. After all, researchers have proven that isolated grammar drills are simply not effective in improving student writing.

To find even more support for my position, I went back to early materials on curriculum for gifted students. In 1974, Sandra Kaplan described characteristics of gifted students and their corresponding curricular needs. In examining these features, I found that the reading/writing workshops dovetail beautifully with the ideal educational program for the gifted student.

As educators of the gifted, we need to keep appropriate differentiation foremost in mind as we plan classroom experiences for our students. Yet we should not fall prey to the nearsightedness of excluding "regular classroom" practices which might benefit students in our gifted programs. The creative teaching strategies we have used for the last twenty years have become more common in the regular classroom as teachers strive to address higher-level thinking skills with all students. Good teaching is good teaching. The literature is filled with examples of teachers willing to teach other teachers about implementing successful whole language practices.

Whole language works in any classroom because it lends itself so well to individualization. The whole language teacher is the facilitator the gifted teacher has always known she was meant to be. It is an approach which close examination reveals to be a "natural" for gifted education.

So, Arnold, ask me today if I am a real English teacher, and I will say, "I am." If you ask me if I teach students to parse sentences, I will answer, "I might, if a reader/writer in my classroom needs that skill to improve his understanding of reading or his ability to be understood in writing." But, Arnold, ask me instead if my students love to read and if my students love to write, because the answer to both of those questions is, "YES!"

Madelyn Maragos has taught in gifted programs in Vermillion Parish and Lafayette Parish in English and enrichment for the past 15 years. She currently teaches in a gifted enrichment program for grades 4-8. Leilani Baudoin has 18 years teaching experience and has taught for the past eight years in gifted programs in St. Martin Parish, Italy, and Lafayette Parish. She currently teaches language arts for gifted students in grades 4-5. Both received their training in gifted education from the University of Southwestern Louisiana. They may be reached at 301 Phillip Avenue, Lafayette, LA 70503.

And So Speaks the Arrow

A silver mist rises,
The braves set out,
Walking softly upon Mother Earth,
A ring of foxes watch silently from the underbrush.

The Sun God, just beginning he journey across the earth,
Watches over the hunters as they set out into the forest.
Soon they will return to the village,
Their packs full of meats and furs,
There would be dancing and singing and worshipping of the gods,
But now they must find food.

Stone Trout hears a rustle in the leaves above,
He turns his face upward to the thick canopy of trees,
He sees a young squirrel, and lets fly an arrow from his bow.
It misses its mark, and falls harmlessly to the forest floor.
"The People" move on through the thick leaves and tangled branches.

And so speaks the arrow which I have found,
In its own silent, magical language,
From its own time,
Long ago.

Morgan Voeltz, Grade 5
Turtle Rock Elementary School
Irvine USD

AUTHENTIC ASSESSMENT

Opening the Gates to More Meaningful Assessments

by Carolyn Houston

Today all phases of education are undergoing change; the look of the class setting, the time configurations of the day, the instructional strategies and hands on approaches practiced by the teachers and students, and most importantly the assessment techniques that are being used to monitor and evaluate the progress of each student. Daily we invite young learners to pass through the gates of education to become responsible, aware, reflective, and active learners. As they enter they bring with them a variety of treasures and talents. Some rush through our gates knocking over any and all who stand in their way, the mass is herded through collectively, and still a few, even our most gifted, must be coaxed and lured through the porticos.

Once the gates swing closed, our jobs as educators begin. We are challenged to motivate and stimulate children with engaging, lively lessons and active experiences which ask students to construct ideas and responses, and demonstrate what they know. We are expected to engage students in meaning-centered activities which encourage them to draw upon their own ideas, emulating the rich and varied backgrounds from which they come. And before they exit for the hour, the day, the week, or the year, we are expected to assess them.

Often we lure our students through those gates and, once swung closed, they become steel doors which offer no means of escape until the student demonstrates his knowledge through norm-referenced/standardized tests. Unfortunately these tests rarely reflect the knowledge and true abilities of our students, especially our gifted and talented. Recognizing that students possess a range of learning styles, we are asked to readdress our methods of evaluation and assessment. Students seated weekly (usually Friday) with a number two pencil, scantron sheet, and multiple bubble response test have little opportunity to demonstrate "real" knowledge.

We should be moving curriculum to where assessment looks like instruction and to where assessment is embedded in our daily lessons. Assessment in our GATE classrooms must become meaningful and thoughtful. Assessments need to begin to take the shape not only of teachers assessing students, but of peer and self assessment as well. Assessment cannot become just an exiting tool; it must be an ongoing process. As assessment and evaluations are made they must take on the shape of performance and outcome-based evaluations. We cannot afford to harness GATE students, who are eager to learn and who often are our most motivated students, to bubble exams which do little to assess critical thinking and creativity. This does not ask us to throw away our lessons and begin anew, but rather to rethink ways in which we establish criteria for learning. Students must be clear about what is expected of them. Not forgetting our knowledge of Tyler and the instructional objectives, Bloom and higher-order thinking, Piaget and performance activities, effective instruction should be matched with effective assessment. Assessment should be "scaffolded up, not dumbed down," according to Grant Wiggins.

As Norm Frederiksen of Educational Testing Service points out, assessment is most meaningful when achievement on an assessment task has an aesthetic and utilitarian value. Tests should be constructed to emphasize production, creation, and performance.

As standardized tests have produced a testing culture, education must examine the need for a classroom culture that will sustain the values, merits, and practices of more authentic forms. If curriculum asks students to group scientific ideas, compose a melody, write active discourses, then students must have time to observe, experiment, draft, revise, and create, and then be assessed on this process. (Rieneke Zessoules and Howard Gardner)

Assessment in our GATE classes should begin to look more authentic and assess students on what we are asking them to do daily in our classrooms. Why not ask students who are studying California, American, or World History to produce a newspaper as a final product of their knowledge of content, or to construct a hypothesis and research a response using primary source material and research methodology? If we expect our students to

think critically (using higher-order thinking skills) and to become problem solvers, we must assess this type of learning. After reading a short story or a novel, why not ask students to create a game board which depicts the significant events, people, or conflicts within the story? Allow students to work together or independently to produce a product based on their conceptualization/knowledge of their reading. Portfolios which have long been used by elementary teachers have found their way to the middle and secondary schools and have become meaningful tools in collecting and assessing student progress in all curriculum areas, not just Language Arts. Portfolios can go beyond a mere collection/sample of student writings. They can include presentation notes, video-taped demonstrations, tape-recorded readings or discussions (independent or group), test scores, and other meaningful data which can be used for evaluation. Open-ended questions which require students to problem-solve and seek multiple paths to correct responses are ways to evaluate students in many curricular areas, especially science and math. Practicing what we preach is essential.

Assessments which reflect the total learning environment and which chart and monitor student progress on a continuum make evaluation a vital component of the total educational process. As the educational paradigm changes, we will want our students to exit through our gates thoughtfully and honestly assessed.

Carolyn Houston is the Mentor Coordinator for the Anaheim Union High School District.

Seaberg

Continued from page 1

education in diverse settings. Altering age/grade barriers, changing the pace of learning, diversifying the educational experience inside and outside the school walls, and individualizing instruction so that it is appropriately complex, creative, and sophisticated are among the key alternatives used. Their work demonstrates how the principles and requirements for the gifted and talented programs they espouse can expand the limits of the larger educational program and bring the vision of the restructured school to fruition.

New paradigms for learning, that have as their central theme the full realization of human potential, are emerging worldwide. This promising trend advances concepts and patterns for education that are reflective of those approaches that educators of the gifted have long promoted to meet the needs of talented youth. Various national educational emphases provide myriad connections through which we can mutually strengthen excellence in the education of the gifted. For example, our concern in gifted education for identifying and serving special populations of students – the disadvantaged, the culturally diverse, and the learning disabled – has been long-standing. Now such students are considered to be "at-risk." The gifted can be counted among them. Attention to critical, creative, and higher order thinking skills is a significant focus in gifted education. Initiatives to include these skills in the regular curriculum can serve to strengthen the foundation on which gifted programs may be built. An increasing concern for early childhood education and broader attention to high expectations of students also offer appropriate links.

New strategies must be implemented to build consensus positions to effect comprehensive educational reform. Further, state policy makers and local educators must strengthen their leadership roles in order to effect those consensus positions in ways appropriate to each state and local school district. The concepts, issues, strategies, and approaches of gifted education, informed by the success of promising programs as well as emerging relevant research, can make a significant contribution to basic school improvement efforts. By clearly articulating and implementing appropriate intersections of thought and practice, educators of the gifted and talented can provide direction that ultimately strengthens opportunities for the gifted in a manner which assures that a vision of excellence is reflected in their education.

Valerie Terry Seaberg is Consultant, Gifted and Talented Education; Maine Department of Education, Past President, Council of State Directors of Programs for the Gifted; TAG Governor-at-Large; Member of the Steering Committee Javits Program; and Member of the Advisory Council of the National Research Center on Gifted and Talented. She may be reached at the Maine Department of Education, State House Station Number 23, Augusta, ME 04333.

COOPERATIVE LEARNING

Cooperative Learning and the Gifted: A Common Sense Approach

by Jan Staples

Over the past three years, I have read about and listened to the controversy over cooperative learning and the gifted and talented. Because of this controversy, I became interested in cooperative learning. Having been an educator in the field of gifted and talented for the past ten years, I decided to find out for myself why so many G/T teachers were upset.

It didn't take me long to discover the issues. The most burning issue seemed to be the debate over cooperative learning and ability grouping. To my amazement I was reading about schools that were actually dismantling their gifted programs, placing all students in heterogeneous classrooms, and adopting cooperative learning as their main instructional strategy. These schools had somehow been convinced that cooperative learning would take the place of gifted and talented programs in meeting the differentiated needs of this population of students.

From where did this idea come? Even Robert Slavin (1990, p 7), principal research scientist at Johns Hopkins University Center for Research on Elementary and Middle Schools, states that "use of cooperative learning does not require dismantling ability group programs." The elimination of ability grouping became so pervasive in California that in a recent issue of the *Communicator*, the Superintendent of Public Instruction, Bill Honig, clarified his department's position on this issue. He wrote, "It has come to my attention that some schools and districts are eliminating advanced classes in a belief that the California Department of Education is encouraging or requiring heterogeneous grouping of students at all times and for all instructional activities. This is not the case." (Clark, 1990).

Apparently, there has been a misunderstanding about this issue from the beginning. It needs to be clearly understood that ability grouping and cooperative learning are not one and the same. Ability grouping refers to the grouping of students by ability or achievement with the purpose of reducing group heterogeneity (Mills and Durden, 1992). Cooperative learning, on the other hand, is defined as a set of instructional strategies "which employ small groups of pupils to promote peer interaction and cooperation for studying academic subjects" (Sharan, 1980, p 242).

As I read more about this controversy, and realizing that I had a clearer understanding of ability grouping than I did about cooperative learning, I decided I needed to find out more about this instructional strategy. At first I, too, was concerned because my first introduction to cooperative learning turned out to be a very complicated structure called Jigsaw. I realized very quickly that students who were already familiar with the material could end up doing most of the work, especially if there were unmotivated group members and a group grade was going to be assigned. I had other concerns as well, but I decided not to make a hasty judgement.

In October of 1989, I had the opportunity to attend a workshop on cooperative learning led by Dr. Spencer Kagan from California. Dr. Kagan presented the elements of cooperative learning, structures that can be selected to fit the needs of a lesson being taught, and a system for implementing cooperative learning in one's classroom. He emphasized the importance of classbuilding, teambuilding, and the development of social skills, and had participants practicing structures that could be used for mastery of content or to develop thinking skills.

After that day it all began to make sense to me. I was most impressed by Kagan's emphasis on thinking skills, which I had not encountered with other cooperative learning advocates such as Johnson and Johnson and Slavin. I now knew where to begin and how to advise teachers. I began by introducing them to structures. According to Kagan (1990), structures refer to content-free ways of organizing social interaction in the classroom. Structures usually involve a series of steps, with a prescribed behavior at each step. It is within the structures that activities are born. Whereas activities can be used up, structures may be used repeatedly with almost any subject matter, at a wide range of grade levels, and at various points in a lesson plan.

Then I began to try some of the cooperative learning structures in my G/T resource room.

I began with a classbuilding structure called Corners. In Corners each student moves to a corner of the room representing a teacher-determined alternative. Students discuss within corners, then listen to and paraphrase ideas from other corners (Kagan, 1989). With my twelve third-grade G/T students I used our theme of "Structure" as the content. I wrote the name of each season of the year on a card and placed each card in a corner of the room. I directed students to select their favorite season of the year and to think of a "structure" that symbolized that season as well. While participating in corners, students had to listen attentively to each other because they knew they would have to paraphrase what each person had said when sharing with the rest of the class. This activity provided to the students information about their classmates, gave them the chance to hear alternative hypotheses and values, and provided the opportunity to practice problem-solving approaches. We then decided which ideas best fit under the principle that we had determined earlier in our theme study, i.e., "All structures are either man made or natural."

Corners is a very simple structure to understand and use in a classroom. Students easily understand the process and are eager to participate. They don't tire of this structure because they know the content will change, as well as what will be done with the content in the end. The possibilities for its use are only limited by the imagination of the teacher. I have used Corners for an anticipatory set, a pretest to find out what the students already know about a topic, a way to introduce new material, and an evaluation check in the middle of a lesson.

Since my first try with Corners I have tried several other structures with the same success. I have instructed regular classroom teachers, K-12, in their use as well. They, too, have found success. I have also gone on to receive more training in cooperative learning over the past two years. My school district became so enthusiastic about the structure approach to cooperative learning that they twice sent me to participate in training led by Dr. Kagan.

During all of my training, though, I have not forgotten my original mission regarding the use and misuse of cooperative learning with gifted and talented students in heterogeneous settings. The concerns of people in gifted and talented education were still mounting. The research or lack of research on achievement gains for this population when in heterogeneous settings using cooperative learning is still being questioned. There is no research to support the assertion that cooperative learning in mixed-ability groups for regular instruction is academically beneficial for gifted and talented learners (Robinson, 1990).

Now that I have had the opportunity to use cooperative learning in both homogeneous and heterogeneous settings, I have been able to make some sense of the controversy regarding cooperative learning and gifted and talented learners. Through a common sense approach I have concluded that cooperative learning, which is only one of an array of teaching strategies, can be beneficial to all students, including the gifted and talented. To qualify this statement, I would like to share a list of ten considerations that I have developed which I feel must be adhered to when a teacher embraces this teaching strategy.

Cooperative Learning and the G/T Student
Ten Considerations

1. Cooperative learning and ability grouping are two separate issues. Therefore, the elimination of programs for the gifted in favor of cooperative learning is totally inappropriate.
2. Cooperative learning is just one teaching strategy for either a heterogeneous or homogeneous class.
3. Cooperative learning should not be used all the time. Create a balance with individual and whole-class assignments.
4. High-achieving students should not always work in heterogeneous cooperative groups. There are times when gifted students should be grouped for fast-paced accelerated work (differentiation). Homogeneous, within class, grouping is also appropriate.
5. Insure that G/T students are engaging in the acquisition of new knowledge when working in cooperative learning groups utilizing a structure such as Jigsaw where teaching of others occurs.
6. Teacher training is imperative. Become familiar with all approaches of cooperative learning and select the parts that are best for your classroom and your students.
7. Carefully match the appropriate structure with content to be taught.
8. When using a cooperative learning structure that requires roles, assign the G/T

students to roles that demand higher order thinking skills.

9. Do not give group grades for academic tasks. Group points for social skills are more appropriate.
10. Do not begin your cooperative learning experience with a complex structure such as Jigsaw. Classbuilding, teambuilding, and social skills development are prerequisites to successful cooperative learning.

I am continuing to advocate for cooperative learning, keeping in mind the ten considerations for the gifted and talented. I have shown teachers how to incorporate specific and appropriate cooperative learning structures as they develop their lessons based on Bloom's Taxonomy. I have begun to rewrite my theme-based units following the Kaplan Matrix (Kaplan, 1979), which provides a framework to differentiate the content, process, and product for gifted and talented learners by selecting the appropriate structure to be used to teach the content at a specific process level I am finding this to be an exciting addition to the matrix as well as a means for providing additional information to the teacher on instructional strategies to use to teach the content.

My common sense approach to the issue of cooperative learning and the gifted is working for me. This approach is also working for those teachers who understand the issues of this controversy and who consider the needs of the gifted and talented learner in their lesson preparations. I am quite certain, though, that this controversy will continue as long as cooperative learning and ability grouping continue to be considered as one issue. The ability grouping issue will persist because educators on both sides of the issue feel strongly that they are right. Cooperative learning also is here to stay. If this teaching strategy is used appropriately, a common ground can be reached by educators who support differing views on the best educational practices to be used to meet the many and varied learning needs of students in our educational systems of today and the future.

Jan Staples is the Director of Gifted Education and the Cooperative Learning Trainer in School Administrative District #28, Camden, Maine. She has also served two terms as President of the Maine Educators of the Gifted and Talented. She may be reached at Mary E. Taylor School, 34 Knowlton Street, Camden, ME 04843

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Department of Corrections

In the April issue of the *Communicator*, the article by Lorraine Fort described a program in Parlier USD. The titles of two people mentioned in the article were incorrect. Martin Mares is a Danforth Scholar and Project Planner for selected GATE projects at Parlier USD. Elsa DeWitt is the District Coordinator for GATE Programs.

In the April issue of the *Communicator*, the article by Shawn Okuda Sakamoto had some incorrect figures.
She submits these corrected figures for your reference.

II. Mathematics Program

Group/test	*Pre-percentile Rank*	*Post-percentile Rank*
SRP SCAT Math	73	91
Control SCAT Math	68	72

COOPERATIVE LEARNING

Cooperative Learning Structures:
A Comparison of Implementation in a GATE Classroom and in a Heterogeneous Classroom

by Marelle Dorsey

Although I had taught for nineteen years and had had identified GATE students in my classes, I had never had the opportunity to teach an entire class of GATE students, until the current academic year. What has made this year so interesting is that I have been able to use many techniques and cooperative learning structures that I had used with heterogeneous classes. The results have been very gratifying. Cooperative learning structures have allowed my GATE students to have the maximum amount of time to process language and to learn both to express their ideas freely and to listen to others. The amount of critical thinking that the GATE students have done in this environment is much greater than that which I observed being done in the heterogeneous class situation. The conclusion that I have drawn is that cooperative learning is a powerful tool that can be used in many different teaching situations and for many different purposes.

My interest in cooperative learning began twenty years ago when I was working on a paper for an education class. I was asked to design a class setting which would most benefit the elementary student. Calling on my own experience as well as observations in other classrooms, I concluded that the best structure would be a cooperative one, for two basic reasons.

- The classroom needs to be a safe place for the exchange of language and ideas.
- Socialization is a very important facet of education and cannot be taught by lecture, but has to be experienced.

Having four in a group, which is really made up of two pairs, seemed to be the ideal. I had also found that the balance needed so that students would stay together long enough to bond and yet be grouped in a maximum number of combinations. The formula which I found worked best was to change groups every four to six weeks.

You can imagine how excited I was to attend the California Math Project at the University of California five years ago and learn that what I had thought and had put into practice all these years had been the focus of many important clinical studies. Cooperative learning advocates were many, including Johnson and Johnson, Slavin, and Spencer Kagan. At the CMP/UCI Project I was exposed to all the developments that had occurred in the field, and was introduced to the idea of structures.

I came to understand that every situation in a classroom is a kind of structure. Teacher talks - student listens is a structure. Think, Pair, Share is a cooperative structure, one with which is easy to begin. The real fun is getting so comfortable with using all the structures that you are able to vary your teaching style easily, shifting from one to the other. As an example, let's look at how a traditional classroom discussion might occur in contrast to a classroom using a variety of structures. After the teacher presents an idea, instead of the teacher asking students to raise their hands to answer a question, the teacher could use Think, Pair, Share. Each student would have a few seconds to think quietly of an answer and then have a chance to talk about his ideas with his partner. Every child in the room is accountable to give an answer. If he and his partner could not think of anything, he might have to say, if called on, that they must pass.

The teacher tends not to have favorites on whom to call if the structure of Numbered Heads is used. Each student in the group of four has been given a number. The teacher can call on all the number threes in each group for their responses. No one is allowed to raise a hand to answer someone else's question. An appropriate waiting time is given, sometimes even allowing a person to double check the partner's position. For the next question all the number twos might be called on. As you can see, there is a chance for each person to talk about the question as well as a responsibility to listen to what someone else's ideas are and to be prepared to respond to the class about the outcome of their deliberations.

I have used such simple structures with limited-English students. It helped them to formulate sentences better when they had partners with more skills. However, when used in

a GATE classroom, the true value seems to be that the students practice their higher-level thinking skills more often. For instance, Think, Pair, Share is one of the Concept Development Structures. These provide the opportunity for students to create and exchange unique ideas using low consensus questions. The questions may be modeled on higher-level ones in Bloom's Taxonomy. Other Concept Development Structures which work well in most classroom environments are the Three-step Interview, Brainstorming, Categorizing, Group Discussion, and Two-Box Induction. All of these structures are usually done in groups of four.

The Three-step Interview consists of:

- Step 1, the students are put in pairs with one student acting as interviewer and the other as interviewee.
- Step 2, the students reverse roles.
- Step 3, the students share what they have learned from their partners.

Brainstorming encourages creativity. Each member of the team has a role to play as ideas on one subject are tossed out within a time limit. No evaluation of the ideas are done during this time. A student acts as a recorder, while at the same time helping the group to build on each other's ideas, encouraging *synergy* in the group. Another member is assigned the role of encouraging *silly ideas*. The other two have the job of either helping to *speed* things along or in reminding the others to *suspend* judgement on any ideas presented. These roles are called the 4 S's of Brainstorming. The GATE students I have observed using this particular structure have come up with remarkable ideas.

Categorizing is another Concept Development Structure with which I have had success both in the heterogeneous class and in the GATE classroom. It provides a way for students to classify, analyze, and synthesize information. The teams are asked to sort or classify information in different ways, such as in unipolar systems or even Venn diagrams.

Another structure, Group Discussion, has two steps. In the first step the teacher asks a low consensus question. In the second step, the students have a group discussion and then share their ideas with the class.

Two-Box Induction, starts with the teacher drawing two boxes on the board. Inside the boxes different items are placed. The teams have to figure out why these items are in the boxes and then add an item to each box that fits the pattern. This continues until all teams have discovered the pattern. As you can imagine, a lesson that contains this type of structure will stimulate a lot of thinking and make learning feel like a game. How complicated the original set-up is can be adjusted to meet the needs of the group, as can all of the structures mentioned.

Cooperative Projects is a different type of structure. Tasks are divided so that each person in a group can make a unique contribution to the team, and the team can contribute to the class. One use of this structure is to have the teams make a sign with a group name. They can then make up a one-word cheer and a handshake and demonstrate it for the class. When all the signs are hung, the class project is complete. This is a good way to build team spirit and make working together easier.

Classbuilding structures are designed to promote a good feeling within the whole class. Some of the ones that I have used are Corners, Formations, Inside-Outside Circle, Line-Ups and Value Lines, and Similarity Grouping. Corners can be used to introduce a topic and to learn about others in the class. The teacher selects a dimension and sets up the corners of the room for choices. The students pick a corner, go there, and pair up. During the course of this activity, each student must paraphrase both things his/her partner has said and what someone in a different corner has said, necessitating careful listening and thinking skills. Formations is a structure in which the whole class, or large groups of students form figures with their bodies. It is challenging to have them do this without talking, using only non-verbal communication. They might be asked to form a figure with exactly one line of symmetry. Outside Circles is an interesting way to have the students change their partners for discussion. The class is divided into two circles, one inside the other. They walk in opposite directions until told to stop. They make a half turn and find a new partner from the other line. Line-ups and Value Lines can be used to have children line up in order, such as by birthdays, or in a line showing whether they agree or disagree on a question. An Agree-Disagree line can be folded, so that opposite ends become partners and have to explain their position to each other. The last one, Similarity Grouping, is somewhat like Corners, except that when the teacher announces the dimension, students have to find someone who agrees with them and discuss both the positive and negative aspects of their choice - their favorite pet, for example.

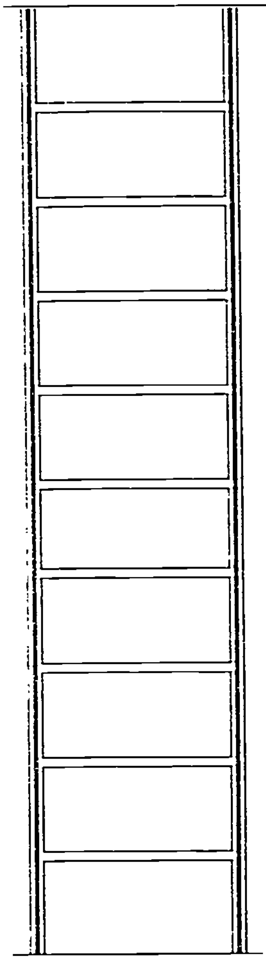
More complicated is Jigsaw, where the original teams of four are broken into four expert groups. The number ones from each group meet with a specific assignment of information gathering - as do the twos, threes, and fours. When they have become experts, the original groups meet, and each member shares his or her expertise with the others. What all of these have in common is that students are being asked to communicate, both to express their ideas and to listen to others and be able to paraphrase what they have heard.

GATE students seem to relish sharing their ideas in these structures, and used within the GATE class they can furnish the teacher with ways of presenting information, assigning responsibility, and giving the students opportunities to work together. The benefits are limited only by the imagination.

Marelle Dorsey is a GATE teacher in the Garden Grove Unified School District, teaching a 3/4 combination. She may be reached at Patton School, 6861 Santa Rita, Garden Grove, CA 92645.

Public Relations: Ladder or Tightrope?

by Lorraine Fort



Ian Byrd, Grade 5
Patton School
Garden Grove USD

Public relations for educators has long been a "darned if you do and darned if you don't" proposition. The most effective schools and programs know how to use and embrace honorable and enthusiastic media marketing skills to let their communities – students, parents, teachers, government officials, senior citizens, college students, teachers, classified staff, merchants, and others – know about decisions, improvements, and accomplishments. They know how to construct and ascend a laudatory ladder. They take pride and praise and hold it up for all to see.

The least effective do not. Instead, they shrink from media attention – any attention – as though it were a death-defying feat – a tightrope walk! Why?

Most probably because they fail to follow a few tried and true rules.

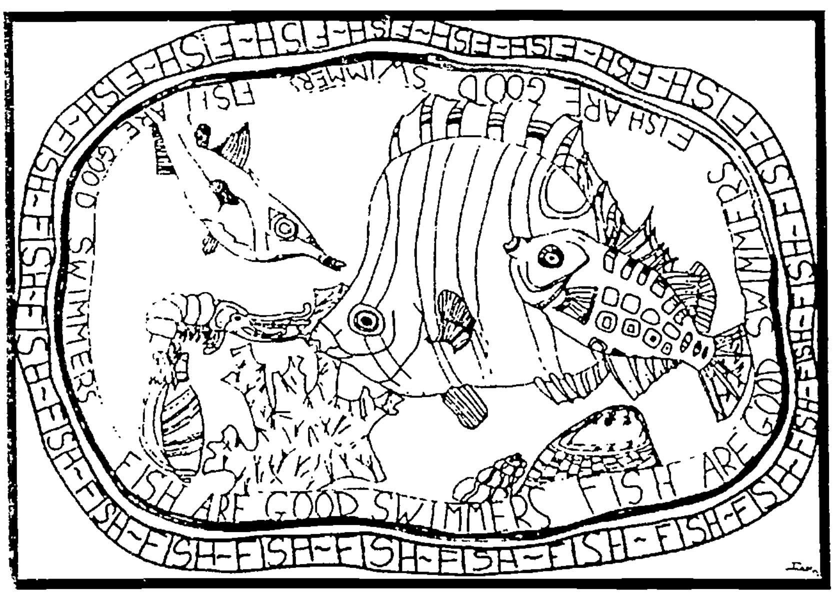
1. Know your audience. Do you research your listeners and readers? Have you surveyed them on issues of importance?

2. Be truthful. This one is self-explanatory. When you control the flow of information, you may also control accuracy and honesty. You must use this control wisely.

3. Be accessible. Are you available to media reporters and citizen groups? Are you able to think clearly and express issues appropriately on short notice?

4. Be informed. Know your subject. Know your subject. Know your subject. And if you don't, find out!

5. Understand your "market." Are you familiar with resources in your community? Which news sources do you use? Can you add to your list? Are there social and business groups at which you can speak? What specialty newsletters exist? What are your local talk show opportunities?



Getting the "good word" out about gifted and talented programs – or any topic in education – takes time and energy, and it requires rapport, a level of trust mixed with a grain of salt – really. It also takes time to build relationships and contacts, and, as in advertising, it calls for repetition. Several similar messages projected at once and continuing throughout the year(s) make the impression people remember.

Every positive effort – no matter how small – inserts one more rung in the ladder. It takes courage to move up, and occasionally one has to move back a rung or two. The benefits, however, can far outweigh the setbacks.

One may still feel the need for a safety net – the "tried and true" rules listed above – but with practice, the risk always lessens.

In his book, *Media Marketing*, Peter G. Hills says, "The success of...many organizations can...be maximized with media attention ...those with continuing media access will have more opportunities for success...promotional skills are essential...where organizations are largely indistinguishable...and...decisions are often made on the basis of name familiarity."

All points to ponder on the way up the ladder.

Lorraine Fort uses her public relations skills for CAG. She can be reached at 209/645-0939.

STUDENT POETS

At the End

I am a sin raindrop,
In a crys ear blue
teardrop shape,
Falling uncontrollably
to the Earth
Destined to finish my
voyage alone.
Yet when I reach the
end,
I will be surrounded
In pure happiness
As I join the others
Who are just like me.

Bethany Barber
Pacifica High School
Garden Grove USD

D

I am the D-string
of a full-sized violin.
Surrounded by so
many others
in different sizes,
shapes,
and colors.

My sound isn't quite
tuned,
not really sharp,
nor altogether flat.
My notes I'm not quite
sure of,
was it a quarter note,
or maybe a half?

I've played in so many
concerts,
played my best,
I have.
I often wonder what I
will do
when my singing days
are done,
and I snap, into half.

Tara Bar-Joseph
Bella Vista High School
San Juan USD

Pencil

"Oh pencil, my pencil.
Come hither, write on
me.
Your yellow gleam,
As if in a dream
You go on a writing
spree."

"Oh paper, my paper.
Your stupidity is a
shame
I do all the work for us-
You take all the fame."

"You are rude to me all
the time,
Just using me to make
my rhyme
Your cowardly yellow,
Makes you a piteous
fellow
While I am pure white,
And move you to
flight."

"Oh so? You think
You'd do fine on your
own?
And what if I left
Our beautiful home?
What then, oh ye of
purest white?
You need a pencil in
order to write."

Shalene Cooper
Josh Livni
Bella Vista High School
San Juan USD

We Thank the Spirits

We thank the rits -
When our golden
ball of light
shines.
As the rain
comes down as
silky lines.
While crimson
stars brush the
trees.
When lace drifts
from the sky.
We thank the spirits -
As wild drums
beat.
While angry
flames of
firelight dance.
When the rivers
laugh like young
children
As black ribbons
of smoke fly with
the wind.
We thank the spirits -
While painted
souls come to life
on cliffs of
crystal beams.
When arrows of
victory fly.
As peace sings
to the earth.
While our people
rejoice.

Elaine Auyoung,
Grade 5
Turtle Rock
Elementary School
Irvine USD

When the War Broke Out, So Did Our Souls

At the cry of war and the first shots
of muskets
Roared out that misty night,
The militia jumped and grabbed their guns,
For the awaiting revolutionary fight.
The cause was clear,
We colonists thought,
Independence was crucial
So we fought and fought.
Our souls cried out for freedom,
Our taxes weighted us down,
Great Britain was unjust to us,
We no longer believed in the crown.
England poured blood into our land,
Our coast was decked with red
For the Redcoats were a-coming west,
Our clash was one tough tread.
But our triumph over Britain,
Won respect from everyone,
And today we still celebrate
The day our country had begun.

Maia Taussig, Grade 5
Turtle Rock Elementary School, Irvine USD

Is the Curriculum for your Hispanic Gifted Children Appropriate?

by Yolanda Barragan Pulido

It is of utmost importance that the curriculum offered for our Hispanic gifted students be suitable for their particular needs. This article will offer some practical suggestions for the incorporation of appropriate lessons for your class.

A report by the U.S. Department of Education's Office of Civil Rights reveals that minority groups such as Hispanics, Blacks, and Native Americans are under-represented by as much a 70% in gifted programs (Richart, 1987). Research indicates that the under-representation of minority groups is due largely to the practices used to identify gifted students (Renzulli, 1973; Ortiz, 1987). One such practice is the use of standardized group IQ tests as a device for screening and eligibility. However, according to many researchers, the use of these group IQ tests are *socially* and *culturally* biased when used with disadvantaged students (Renzulli, 1978: Meeker, 1978).

The good news is that many schools have taken this important research into consideration and have begun to identify Hispanic gifted students using authentic assessment criteria that may include:

Nomination forms from teachers, principals, counselors, psychologists, peers;

Teacher reports of student functioning – including intellectual, physical, social, and emotional functioning, learning style, and motivation;

Family history and student background;

Student inventory of self, values, interest, and attitudes toward school and out-of-school activities; and

Student work and achievement.

Screening Tests

Multidimensional screening tests such as the Structure of Intellect (SOI) have provided our staff in the Alisal Elementary School District in Salinas, California, the first practical opportunity for educational therapy with our large percentage of Hispanic students. The basis of SOI includes the "mapping" of the different kinds of intellectual abilities.

- Identifiable intellectual abilities are prerequisite for learning in different content areas. Specific Structure of Intellect abilities have been related to basic learning areas – reading readiness, reading arithmetic, mathematics, and creativity.
- Student failure in learning situations is often because they do not have the prerequisite intellectual abilities. In other words, a learning disability is most often the absence of a learning ability.
- The Structure of Intellect learning abilities can be assessed. In other words, we can test to measure the extent of development of the specific abilities required for learning.
- Underdeveloped learning abilities can be taught. We can develop those abilities that have been neglected, ignored, or inhibited by factors such as poor health, perceptual problems, or emotional barriers.

SOI has been tested in many schools, with gifted, slow learners, mentally retarded, disadvantaged, educationally handicapped, neurologically impaired, and bilingual as well as average students. Results indicate that progress in achievement scores, social adjustment, and better self-concepts has come about when SOI prescription tasks have been used. The SOI prescriptive approach has demonstrated that a student's intelligence can be trained, and if trained specifically, improved self-concept and improved attitudes lead to scholastic achievement. (Meeker, M., 1991)

If your school has identified Hispanic gifted students, I urge you now to *assess your curriculum.* Just as we know that many students have missed the opportunity to participate in gifted programs because of the *socially* and *culturally* biased standardized tests, it is important to note whether or not the curriculum that we now offer our Hispanic gifted students is *socially* or *culturally* biased or appropriate.

The fact that we may have Hispanic students in our classrooms does not necessarily mean that they know very much about their culture and their heritage. We must provide classroom environments that will allow students to openly discover the richness of their heritage.

Yolanda Barragan Pulido is a Resource Teacher with the VIA SOI Project in Alisal ESD. She may be reached at the Frank Paul School, 1300 Rider Avenue, Salinas, CA 93905.

To foster a personal investigation of one's culture can allow students to acquire a sense of pride and importance. Students who can learn to appreciate their own culture's contributions can more readily become responsible leaders, in that they will promote respect and responsibility in their community. If classrooms can become a model that is respectful and enthusiastic of the cultures and traditions represented by its students, then children will learn to work together to promote the positive aspects of their culture and, at the same time, work to overcome those aspects of traditions that stifle progress.

Children must understand that ignorance of their culture can lead to a narrow understanding of some of the forces that control our behavior and attitudes (low self-esteem, bigotry, racism). Children can be given the opportunity to examine their culture and background while acquiring academic skills through integrated thematic instruction strategies. They will learn to evaluate their beliefs in comparison with those of others. It is imperative that students learn about themselves before they are asked to understand the world around them.

What can we do in the classroom to foster the study of Hispanic culture?

How about incorporating a thematic approach to your curriculum that will allow students to investigate their Hispanic culture from the perspective of the past, present, and future while integrating science, art, literature, mathematics, music, architecture, politics and education?

Students can also study the demographics of their particular school or community in order to evaluate whether Hispanic needs are being met in the areas of health, education, employment, industry, politics, etc. How can they help meet the needs of their community now and in the future?

Empower your students to become leaders by forming partnerships with Hispanic community leaders and role models. Invite role models as well as parents to come to your class and share their expertise.

Encourage students to investigate how Hispanics of today are making achievements and contributions in fields such as literature, film, music, politics, medicine, dance, sports, journalism, education, business, industry, etc.

The beauty of incorporating the study of culture from the perspective of the past, present, and future with regard to language, science, literature, music, etc. is that you can encourage critical thinking and problem solving, creativity, research, and other higher-level thinking skills. Children will also become more aware of educational and vocational options.

In closing, fostering the study of culture in your classroom will enrich your curriculum and can empower your students to become the proud and productive citizens of the future. Isn't that what education is all about?

Dragon

I am the dragon!
I live in a forest of myths and legends.
I swim in a river of stories and tales.
I fly in a sky of fables and fiction.
I am the dragon!
I can hide myself in a child's imagination.
I will reveal myself in a storyteller's tale.
I can stow myself in anybody's dreams.
I am the dragon!

Kasey Littlefield, Grade 6
Patton School
Garden Grove USD

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Optimizing the Future for Gifted and Talented Students from Underrepresented Populations

by Deborah K. Bellflower

Do you want the educational demographic "good news" or "bad news" first? As with most futuristic projections these days the "bad news" looms large, leaving us to question whether our nation has the capacity and resources to accomplish the "paradigm shift" necessary to make substantial changes for the success of gifted and talented students from underrepresented populations. Listed below are educational demographic projections from the Institute for Educational Leadership, Inc.

- more children entering school from poverty households
- smaller percentage of children who have had Head Start and similar programs, even though more are eligible
- continuing drop in the number of minority high school graduates who apply for college
- increased numbers of Asian-American students, but with more from Indonesia, and with increasing language difficulties
- continuing high drop-out rates among Hispanics, about 40% of whom currently complete high school
- major increase in college students who need BOTH financial and academic assistance
- continuing decline in percentage of high school students who graduate in virtually all states, except for minorities
- continuing increase in the number of Black middle class students in the entire system
- increasing number of talented minority youth choosing the military as their educational route, both due to cost and direct access to "high technology"
- continuing increase in the number of college graduates who will get a job which requires no college degree (currently 20% of all college graduates)
- increased percentage of workers with a college degree (from one in seven to one in four today).

Deborah K. Bellflower is the director of the Academic Talent Program at the University of California, Irvine

Within the United States' educational system gifted and talented students represent a small percentage of the general student population. Using a standard definition of general intellectual ability the percentage of gifted and talented students is usually reported at 3-5% of the national student population. Affecting this population are factors which may place students at risk and prevent them from being recognized or identified and/or raise barriers which preclude the accessibility of appropriate or adequate educational opportunities.

There are the underachieving gifted students who demonstrate individual potential (typically an IQ of over 140) but whose school performance is mediocre or even failing. There are culturally different gifted students who may not be as readily referred for gifted education services or who find that the identification procedures and selected assessment instruments may not provide the school district with a true representation of their abilities and potential. There are young gifted students who may be at risk because they live in a school district which does not begin to identify gifted students until the third or fourth grade, by which time the students' abilities may be submerged beneath daily home and school coping behaviors – the "window of opportunity" for recognition lost. Gifted handicapped students may find themselves doubly at risk because their giftedness masks their handicap and their handicap often masks their giftedness, with services for neither. There are the gifted girls and women who continue to be discouraged from pursuing academic careers in mathematics and science. Last, there are the economically disadvantaged students who, regardless of race, ethnicity, or gender, find themselves left out of the referral process and often absent from gifted education programs.

A key element identified through the Florida Department of Education's statewide study of gifted students from racial and ethnic underrepresented populations was the lack of accessibility into the initial "pool" of candidates through standard referral and screening practices. There was a general lack of awareness of this special population on the part of educators. We also discovered through testimony from parents during a series of statewide hearings how unaware parents and legal guardians were of their local referral and eligibility procedures.

Awareness of students from these underrepresented groups can be increased when a state and/or local educational agency identifies this as a discrete goal or objective of the agency. For example, in 1989 Dr. Joseph Shilling, State Superintendent of Schools for the Maryland State Department of Education, identified in a Superintendents' Memo an expectation for support of a state initiative to identify minority students and staff participants in the 1989 Maryland Summer Centers for Gifted and Talented Students Program.

Along with the "Sups Memo" were attachments highlighting several local district programs which had made significant advances in this area such as the Program of Assessment Diagnosis and Instruction (PADI) model, developed through Montgomery County Public Schools to identify young Black and Hispanic students, the Howard County Public Schools program for nurturing highly able Black students, and a synopsis of the TAG Opportunity Program developed in Prince George's County. This demonstrates a level of support and an expectation of accomplishment for all school districts from their chief state school officer. A similar level of intent is demonstrated by Whittier Union High School District in California through their GATE program handbook. The handbook states, "It is the specific intent of the GATE Program Identification and Placement Committee that **all qualified pupils, including those designated limited English proficient (LEP)**, be provided every rationally based opportunity to be considered eligible for the GATE Program."

Articulating a commitment to developing a GATE program which is multidimensional is the first step and can be a catalyst to developing the basic skills of education which were identified in the Workforce 2000 Report as part of the Foundation Skills that all future workers should possess. Important for this population are the recommended personal qualities of self-esteem, self-management, integrity, and individual responsibility, since the issue of self-esteem and positive attitudes consistently appear in the research literature with regard to the achievement and success of gifted students from underrepresented students. Also vital are the thinking skills, which include decision making, problem solving, learning strategies, creative thinking, and reasoning skills which are necessary for success in the future workplace.

The recently published AAUW nationwide poll to assess self-esteem, educational experiences, interest in math and science, and career aspirations of girls and boys ages 9-15, entitled "Shortchanging Girls, Shortchanging America," which included over 3,000 students, identifies the issue of self esteem as the key finding. Adolescence is found to be a tough time for both girls and boys. As girls and boys grow older, both experience a significant loss of self-esteem in a variety of areas; however, the loss is most dramatic and has the most long-lasting effect for girls. The report summarizes several important findings about the effects of young people's declining sense of self and the complex relationship between adolescent self image and careers, the differences in that relationship due to gender, and the impact of math and science on self-esteem and career aspirations.

Because the home is where the student's first learning experiences occur and the parent is the most important teacher, we must develop and support not only special programs developed for gifted and talented students from underrepresented populations but also support general programs and opportunities available for parents to learn how to help their children do better at school. In 1989, a meeting of representatives of twenty-one organizations – employers and unions, private and public – took part in demonstrations of five trail-blazing programs designed to aid parents at the workplace learn to do just that. The meeting summarized the first eighteen months of a two-year study entitled "Linking Home and School through the Workplace" under a grant from the John D. and Catherine T. MacArthur Foundation. One of the Foundation's major fields of interest is to ensure that children, particularly those from disadvantaged homes, not be prevented from realizing socioeconomic success. It promotes educational programs to improve the home and community environment of children ages 4 to 14.

The objectives of the workplace program were to determine what approaches were being used by school-related programs for parents and how well they worked; to adapt successful programs to the workplace; to develop printed and other program materials and make them available to employers and unions; and to advise users on how to publicize programs to their employees or members and to set up a network to disseminate the programs.

Over the course of a year the study identified five outstanding programs that had worked successfully in school-related situations. They were presented at this meeting and are as follows:

- Parents' Q and A Library. A display of twenty questions that concerned parents typically ask about school children (for example, "How can I get my child to do his/her homework?"), and a matching set of brief, easy-to-read instructions for painless activities at home that will produce the desired results.
- Reading Aloud. A set of one-hour, stand-alone workshops in which parents get the hang of reading aloud to their children and stimulating them to read more. The workshops also provide practical advice on how to obtain good books that children will enjoy.
- Family Math. A set of one-hour, stand-alone workshops in which parents learn about the mathematics subject matter their children are studying so they can discuss it comfortably. At each workshop they try out and bring home activities that are fun and which help parents and children alike absorb important mathematical concepts and procedures.
- Family Science. A set of workshops along the same lines as those for Family Math, but focusing on basic concepts and procedures of physics, biology, and other sciences.
- TV Watching. A one-hour workshop in which parents learn how to help their children think critically about what they see and hear on television.

Robert Zager, Vice President for Policy Studies at Work In America Institute, has described these programs.

How does a program work? Take Family Reading as an example. Developed originally for use at school, it consists of ten one-hour workshops, each covering different subject matter; each can stand alone, but all fit together into a coherent series. Parents enjoy them and benefit whether they are low-literate or have college degrees. Workshops can be oriented toward children of any age. Parents help each other learn how to read aloud and to ask questions that pique children's interest and stimulate their minds. They learn how to listen to children's responses. They become familiar with books of folktales, poetry, science, and family stories, and learn where to borrow or buy children's books. Consistently, they find their family lives enriched by the experience, and many begin to renew their own education.

I think you can already imagine how this could be further refined or enhanced to provide basic information and support to parents of gifted and talented students.

A "Plan of Action," or should I say a "Plan of Success," which focuses on the nurturing and development of potential and achievement for gifted students from underrepresented populations must include all aspects of the student's world, with particular attention given to the information you can gather from the student's parents or extended family members and the information and support you can provide to this same source. This information may be used in a traditional assessment process or when using an authentic or portfolio assessment process. Taking advantage of programs that support and educate parents in the workplace can provide a vital link for the success and recognition of these gifted at-risk students in our nation's schools and support for their parents.

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COMMUNICATOR

GIFTED GIRLS

How Schools Shortchange Girls: Implications for Parents and Educators of Gifted Girls

by Carolyn M. Callahan

Early this year the American Association of University Women released a comprehensive report on the education of women prepared by the Wellesley College Center for Research on Women. This report, entitled *How Schools Shortchange Girls* (AAUW, 1992a), grew out of concerns that the debates around educational reform of the past decade had largely ignored the needs of females. A review which assessed the amount of attention given to gender and sex equity issues in 35 reports issued by special task forces and commissions since 1983, resulted in the finding that only four gave serious attention to these issues and only one made a specific recommendation.

> *This invisibility of girls in the current debate suggests that girls and boys have identical educational experiences in school. Nothing could be further from the truth. Whether one looks at achievement scores, curriculum design, or teacher-student interaction, it is clear that sex and gender make a difference in the nation's public schools. The educational system is not meeting girls' needs (AAUW, 1992c, p. 31).*

Although the needs of gifted girls were not the explicit focus of the report, the data summarized, the conclusions reached, and the implications are often directly related to the issues which face gifted young women in our schools. The most pertinent findings and issues revolve around the development of gender roles, the experiences that young women have in school, and the continued lack of interest and achievement in mathematics and science among the females most talented in those areas. They are discussed briefly here, with selected citations from the report to illustrate the issues.[1]

Development of Gender Roles

Male and female children begin the development of gender roles in infancy, but the adoption of these roles in stereotypic and rigid fashion at the beginning of adolescence is the first indication of potential limitations that females – especially gifted females – impose on themselves. For example, by sixth grade, girls "rate being popular and well-liked as more important than being perceived as competent or independent. Boys...are more likely to rank independence and competence as important" (AAUW, 1992a, p. 11). While we certainly do not expect females (or males for that matter) to abandon concern for others, the obvious danger is that girls may begin to act on their beliefs to pursue popularity at the expense of the pursuit of independence and competence – a tragic loss.

At the same time we see other indicators that are even more detrimental to the gifted female. Nearly every longitudinal study reports significant declines in the self-esteem and self-confidence of females as they move from childhood into early adolescence. These sig-

Continued on page 35

PRESIDENT'S COLUMN

Sandra Kaplan

When Opportunity Knocks... or Fails to Knock

Students willingness to use available academic opportunities and to create opportunities for themselves are necessary components in attaining academic success and personal fulfillment. The comment, "If I only had the opportunity...." might better be phrased, "How can I make the opportunity?" Both parents and teachers share the responsibility to help gifted students learn to assess and accept the opportunities that are presented to them. Gifted programs need to include within the curriculum discussions about the value of accessing and structuring opportunities that can support the students' abilities.

Gifted students often are resistant to the opportunities available to them. When presented as an ancillary experience or as an additional feature of the educational process, the opportunities that could be meaningful for students are discounted or ignored. When presented as a potentially unforgettable experience by an over-zealous adult, the opportunities that could contribute meaningfully to the gifted student are rejected. Gifted students will describe how they devalued the opportunities presented to them because of both how they were offered and who was presenting the opportunity.

Gifted students who readily take advantage of the opportunities presented to them sometimes are perceived as greedy. Gifted students who attempt to define and structure opportunities for themselves are viewed as aggressive. This situation seems to transcend gender and seems to be particularly related to the concept that gifted students do not need more opportunities since they already are privileged, so to speak. Of concern is that during current times when economic and academic opportunities are being curtailed, gifted students need even more assistance in being able to make decisions about how to take and make opportunities. One quality of a differentiated curriculum would be to teach gifted students how to make a match between the availability of opportunities and the profile of their needs, interests, and abilities.

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ON THE LIGHT SIDE

by Jean Watts

Yes...Reality is very clear to me ... and coloring yellow chickies is not it.

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Jean Drum

America Needs Heroines

Every so often an observer of American life writes an article decrying the lack of heroes in our society. There's no one to look up to, no one to admire, no one to pattern ourselves after. Government officials are embarrassingly fallible, police don't inspire significant numbers of citizens, doctors are sometimes seen as more concerned with avoiding malpractice suits than caring for patients, teachers are portrayed as incompetent or ineffective, and even parents no longer occupy the pedestal they once enjoyed. Of course, these commentators admit that the dreadful examples they use may be the exception rather than the rule, but it is generally agreed that heroism isn't what it used to be.

What about heroine-ism? We may be facing a dearth of heroes just now, but think about it. Who are our heroines? Who do Americans think of when they say the word heroine? Betsy Ross? Well, maybe. Clara Barton? Elizabeth Blackwell? Susan B. Anthony? Suffragettes? Rosie the Riveter? Amelia Earhart? Eleanor Roosevelt? These are all inspiring women, and there are more, lots more, but however you add it up, *there aren't enough.* Those are all names from the past. What we need to consider is the present, or maybe the year 2000 and the fulfillment of the National Education Goals. What we need is more heroines, role models for girls, all girls, but especially gifted girls.

In her article in this issue, Kate Noble quotes a study which says "no child will choose a career that she does not know about or cannot identify with," and this is the crucial issue. How can gifted girls and women fulfill their potential when they meet, read about, see on television so few women in roles of leadership, so few women being admired nationally (or internationally) for exceptional contributions? The figures are too well known to need repeating – the still dismally low percentage of women in government, on university faculties, in medicine and law, in public school administration, the areas where policy is made and ideas turn into reality. When girls see teachers, but few principals and even fewer superintendents, lots of nurses but still not many doctors, one Supreme Court justice and thousands of paralegals, they have an overwhelmingly difficult time envisioning themselves in anything but less significant roles.

Our mission is clear. We must provide gifted girls with heroines to admire and to whose achievements they can aspire. We must find all the heroines we can, the women who are in positions of leadership right now, and we must put them in touch with the upcoming generation of girls. We have to find ways to write about them in publications, see that their achievements and positions are aired on television, convince them that coming to schools and talking to classes (the boys need to hear this too) is worth their time. We need to put pressure on television and the film industry to show women in serious positions of authority and competence.

Teachers have a significant role to play in all of this. We've all read the studies suggesting that boys and girls are treated differently in class, and we need to look at ourselves in the classroom and be sure we aren't contributing to this. Above all, we need to encourage girls to feel they can be successful in math and science, those areas which are so notoriously male dominated. If by the year 2000 we want American students to be "first in the world in science and mathematics achievement," we (and this means every teacher who walks through a classroom door every day) must make a concerted, definite effort to see that girls are included completely in science and math education starting with their first day in kindergarten.

Yes, we need heroes. Inner city kids need heroes. Disabled kids need heroes. Minority kids need heroes. Just plain ordinary kids need heroes. And at least half of those heroes need to be heroines!

What it Means to be Gifted and a Woman

by Debra Russell and Nina Alexander

Nineties men are finally able to cry. ...It is surely time for women to stop playing the role of the somewhat silly, defenseless little woman who may compete in the man's world but who really belongs in the kitchen and the bedroom.

Being a woman is no easy job, but being intelligent as well is an even tougher challenge. We have all struggled with the stereotyping and prejudices with which our society has labeled women in this male-dominated nation.

A recent American Association of University Women study states that curriculum commonly ignores or stereotypes females, that sex bias is found in standardized tests, that the gender gap in science has not declined and may be increasing, that girls who want to take college math have closed the gap with men in their field but are still not pursuing math-related careers in proportion to men. We ask ourselves why these facts are still a reality in the nineties.

Celina Miranda, an 11th grade GATE student at Century High School, recently did a study on feminism for her honors project. Miranda told us, "Every day brings about a new challenge. I face these challenges with diligence and strive for successful results. At the same time, I must prove to those around me that my gender does not limit my potential as an individual human being." Why does one still have to prove that being female does not limit one's ability?

We discussed the question of being gifted and a woman with several girls from our 9th grade honors English class. One of the most striking themes to emerge was that many girls will hide their intelligence around men because they sense that if they are considered "smart" they will scare the men away. Another theme that emerged was the fact that girls will react and defend themselves against blatant sexist remarks but that they will ignore the sexual innuendos with which we are all familiar. In fact, women are so used to these subtle sexist remarks that often we don't even notice them. It is worthwhile to note that these 9th grade girls could relate this behavior to their parents' lives and the lives of their parents' peers as well as to their own. One obvious example of this is that when a woman is moody it is often attributed to PMS. When a man is moody, he has had a hard day at work.

We have all heard stories of teachers who direct their questions more to the boys and who seem to favor the male gender. Fortunately, we have not encountered this problem in our classrooms. We seem to face the most difficulties outside of school. Proving that we are intelligent, that we do have ambitions beyond marriage and children, is not always an easy task. However, in our GATE classes, the teachers are exceptional. They treat each student with respect and as a person, not a gender. The biggest problem is that being both a woman and gifted places one in a real minority situation, a situation that is often uncomfortable because of our male-dominated society.

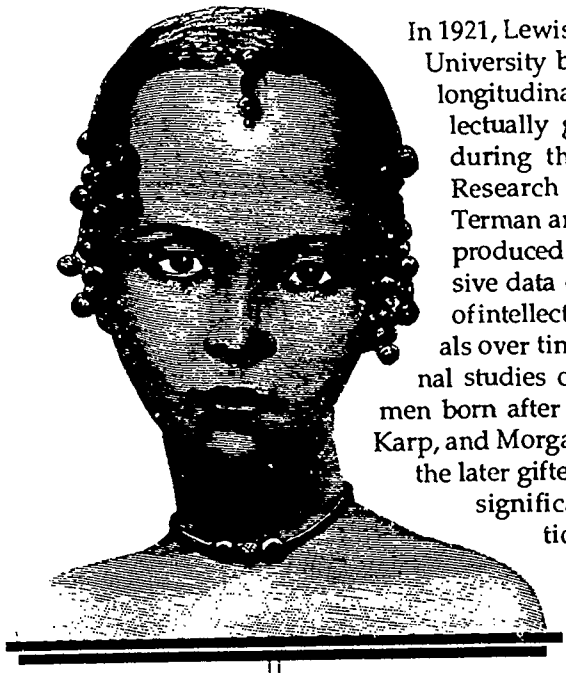
We feel that the media has been the major problem in the stereotyping of gifted women. Many movies and most commercials portray women as bimbos or sex symbols. If women are smart or gifted, they are often seen as unattractive and even, in some cases, evil. The only way to change the image society has created and that many women have fed by accepting it and by covering up their intelligence is by changing our way of thinking and forcing the media to change its stereotyping. After all, in the nineties men are finally able to cry. They don't have to be the macho figure all the time. If this is so, then it is surely time for women to stop playing the role of the somewhat silly, defenseless little woman who may compete in the man's world but who really belongs in the kitchen and the bedroom. It is time for women to emerge as the intelligent beings they really are.

It is surely up to the gifted woman to lead the way, not in a war against men, but simply to assert one's right to be an intelligent being as well as a woman, to force society to accept the fact that intelligent, gifted women are a natural part of our society and are here to stay.

Debra Russell and Nina Alexander are GATE students at Century High School in Santa Ana, California, and members of the SAGE Leadership Team.

Factors Affecting the Achievement of Culturally Diverse Gifted Women

by Margie K. Kitano and Carol O. Perkins



In 1921, Lewis Terman of Stanford University began his pioneering longitudinal study of 1,528 intellectually gifted children born during the previous decade. Research on this sample by Terman and his colleagues has produced the most comprehensive data on the characteristics of intellectually gifted individuals over time. Recent longitudinal studies of gifted women and men born after 1940 (e.g., Subotnik, Karp, and Morgan, 1989) indicate that the later gifted women have made significant gains in educational attainment and professional status as compared with the Terman women. Unfortunately, neither the early nor the more recent studies offer significant insight on gifted women from ethnically diverse backgrounds. To provide understanding about the lives of ethnically diverse gifted women, this article presents a synthesis of extant literature and derives hypotheses concerning factors affecting this group's achievement. The article begins with a discussion of demographic data that substantiate the need to generate information concerning gifted women from diverse backgrounds.

The Data

Available data on school-age children identified as gifted indicate that culturally diverse gifted children, whether male or female, tend to be underserved (Multifunctional Resource Center, 1990; Zappia, 1989). Collectively, these data suggest that while increasing numbers of ethnic children are being enrolled in programs for the gifted, the number of Hispanics and African-Americans in such programs is less (in some cases by over half) than what would be expected from their numbers in the general population.

Few data are available regarding the achievement of ethnically diverse gifted women. The underachievement of this group can be inferred from separate findings on gifted women and the professional attainments of women and ethnically diverse individuals.

Although the incidence of giftedness in boys and girls is equal, the number of males exceeds the number of females in terms of adult achievers. As Callahan (1981, 1991; Reis and Callahan, 1989) has pointed out, the literature on gifted adults suggests that a substantially greater proportion of creative, productive adults are males. One study of 400 historically eminent individuals included only 52 women (Goertzel and Goertzel, 1962). A subsequent examination of 300 contemporary individuals of eminence (Goertzel, Goertzel, and Goertzel, 1978) mentioned only 78 women. Nationally, women have increased their share of doctorates. According to the *Chronicle of Higher Education* (April 25, 1990), women earned 36.5% of all doctorates awarded in 1989. However, of American citizens earning doctorates, only 3.6% were African-American, 2.5% Hispanic, 2.7% Asian, and 0.4% Native American.

The business sector also reports low participation of women and ethnically diverse individuals in management. Morrison and Von Glinow (1990) cited the following statistics:

Women represent only 3.6% of board directorships and 1.7% of corporate officerships in Fortune 500 companies (1988 study), 8.6% in Senior Executive Service levels in the U.S. Government (1989 study), and an average of 1.1 senior administrator (i.e., dean level or above) per college or university nationwide (1986 study).

Regarding ethnically diverse men and women, one African-American heads a Fortune 1000 company (1988 study), and in 400 of the Fortune 1000 companies, less than 9% of all managers were African-American, Hispanic, or Asian (1986 study).

In sum, the literature points to unequal access of culturally different children to educational programs for the gifted and unequal access of women and ethnically diverse individuals as adults to positions of professional

status. Even with the advent of the women's liberation movement, the proportion of women holding top positions in business, academia, science, journalism, literature, and the arts – virtually all professional fields – continues to be small. When individuals are both culturally diverse and female, the obstacles to equal access compound. Society's loss of the potential contributions of gifted women from culturally diverse backgrounds makes the acquisition of information that will promote their development critical.

Models of Adult Achievement

Theoretical models of adult achievement that consider structural, institutional, and societal factors in addition to individual and background characteristics, appear most appropriate for understanding achievement of culturally diverse gifted women. A synthesis of allocation and traditional socialization models is required to conceptualize diverse gifted women's educational and career attainment.

According to Kerckhoff (1976), the traditional socialization model of status attainment suggests that an individual's ability and early socio-economic status (SES) explain the ultimate level of education achieved, and that these three variables explain occupational attainment. Mediating socialization process variables include encouragement by significant others (parents, teachers, peers) and the child's aspirations. Thus, the socialization model attributes outcomes to the individual's evolving personal characteristics as shaped by significant others in his or her environment.

Kerckhoff also describes a competing view, an allocation model of status attainment. This latter model minimizes the significance of variations in socialization outcomes, motivation, and skills and instead emphasizes social forces and structural limitations, such as institutional criteria for identifying, selecting, and classifying individuals. Allocation models assume that structural factors (those outside individual control) exert profound influence on the position one ultimately reaches. Kerckhoff and others (e.g., Wilson, 1987) argue that the traditional status attainment model, which assumes that individuals operate in an open opportunity system, has less applicability to ethnically diverse populations, individuals from low-SES backgrounds, and women.

Betz and Fitzgerald (1987, p. 143) summarized individual, background, educational, and adult lifestyle factors which are generally supported in the empirical literature as enhancing women's career achievement. Individual variables are high ability, liberated sex role values, instrumentality, androgynous personality, high self-esteem, and strong academic self-concept. The authors point to having had a working mother, supportive father, highly educated parents, female role models, adolescent work experience, and androgynous upbringing as important background variables. Educational variables include higher education, continuation in mathematics, and girls' schools and women's colleges. Late marriage or single status with few or no children constitute adult lifestyle factors facilitative of women's career achievement.

Betz and Fitzgerald note that the manner in which these factors interact to impact career development requires investigation. They conclude that no satisfactory theory of career development of women exists. "Given that girls surpass boys in school achievement at all levels, but lag far behind in ultimate educational and occupational level attained, an appropriate model will have to include barriers to women's career development, both internal and external, that reduce the extent to which their abilities are actualized." One can readily infer the absence of a satisfactory theory of the career development of *gifted women* and *culturally diverse gifted women.* Given the "triple minority" status of such women and their culturally defined socialization experiences, structural and socialization factors must be examined in addition to personal/individual attributes.

Factors Affecting Gifted Women's Achievement

Findings of comparative, longitudinal, retrospective, and analytic studies on gifted women have yielded information consistent with Betz and Fitzgerald's summary (1987) of variables that support women's career achievement. However, as noted above, few studies specifically address diverse gifted women. One notable exception is Arnold and Denny's case study report (1991) on five African-American (three women and two men) and three Mexican-American (all women) 1981 Illinois high school valedictorians. For the most part, inferences must be drawn from available literature on gifted women and on high-achieving individuals from culturally diverse backgrounds.

Table 1

Selected Studies on Factors Affecting Ethnically Diverse Achieving Women (& Men)

Reference	Factors Affecting Achievement		
	Personal	Background/Socialization	Structural
Arnold and Denny (1991) Followup of 8 black and Mexican-American subjects from study of 1981 Illinois high school valedictorians	persistence; determination	strong family ties lead to sense of responsibility to family of origin; commitment to community	economic hardship; support/encouragement from college faculty
Simoniello (1981) 8 case studies of high-achieving professional Latinas	some assimilation; independence; goal orientation	high parent expectations for high school, with less support for higher educ., especially from fathers; expectations of obedience to parents; conflict over nontraditional careers	experiences with discrimination; sexism experienced within family and society
Lane (1973) Retrospective analysis of 22 female and male African-Americans from poverty backgrounds	average 2nd grade IQ; increase of 8 points in 8th grade while controls declined	married parents both living at home during subjects' childhoods; high mobility but less than control	questionable validity of IQ scores
Allen (1985) 327 female and male African-American undergraduates at six "white" state universities	3.4 high school GPA; high aspirations; drop in female acad. perf. cf. to males; aspiration levels lower for females and lower SES subjects	parents graduated from high school; 25% graduated from college	academic achievement related to favorable faculty relations, high school grades
	Adolescents		
VanTassel-Baska (1989) Case studies of 15 disadvantaged gifted adolescents, including 8 black and 1 Asian	high level of school success; positive attitudes toward school; need for achievement; some external motivation; procrastination	high parental aspirations, expectations, and standards for achievement; role of extended family; importance of grandmother for girls; limited peer involvement	importance of teachers and school
Lee (1984, 1985) 68 black students grades 8-12 in a SE rural school system; identified by school as successful academically and socially	high achievement motivation; consistent study habits; future orientation; high aspirations; high social consciousness; religious beliefs; black pride but low levels of black consciousness; self confidence; perceived differences from peers	high parental encouragement; values of respecting others and elders, honesty, church; importance of extended family; domestic responsibilities;	most indicated no experience with racially related problems in school (predominantly black system)
Fordham (1988) ethnographic study of 6 high-achieving black high school students, 3 male/3 female in predominantly black school	females showed "unequivocal commitment to values and beliefs of dominant social system"; use of "racelessness" as a strategy to cope with ambivalence about achieving.		raceless persona valued by school

Interestingly, even the literature on high achievers among some ethnic groups is sparse, perhaps due to adoption of theoretical models that predict underachievement as normative for these groups (Slaughter-Defoe, Nakagawa, Takanishi, and Johnson, 1990).

Table 1 summarizes findings of studies that illuminate factors affecting the performance of high-achieving adults and adolescents from culturally diverse backgrounds. Consistent with the model of contributing factors described above, we have organized the findings as personal characteristics, socialization and other background influences, and structural factors.

Factors Affecting the Achievement of Gifted Women of Color

Hypotheses regarding factors affecting the achievement of ethnically diverse gifted women can be derived from the foregoing literature. Table 2 presents (a) factors found by Betz and Fitzgerald (1987) to enhance the career achievement of women in general; (b) additional factors inferred from the literature as supporting the achievement of ethnically diverse gifted women; (c) barriers found for gifted women in general; and (d) additional barriers that might be hypothesized for gifted women of color based on the literature reviewed.

If verified, these hypotheses may have implications for teachers, parents, and counselors regarding early recognition and acknowledgement of the potential of culturally diverse gifted girls; early support of ethnic and personal pride; identification of supportive peer groups; strategies for recognizing and responding to harassment, and sexual and racial discrimination; strategies for obtaining financial assistance; strategies for finding peers and ob-

Table 2

Factors Affecting Women's Career Achievement

Reference	Individual	Background	Education	Adult Lifestyle	Structural
Supported in empirical literature as enhancing women's career achievement Betz and Fitzgerald (1987)	high ability liberated sex-role values instrumentality androgynous personality high self-esteem strong academic self-concept	working mother supportive dad highly educated parents female role models adolescent work experience androgynous upbringing	higher education continuation in mathematics girls' schools/ women's colleges	late marriage few or no children	
Additional supportive factors hypothesized for ethnically diverse gifted women	biculturalism resilience determination persistence assertiveness racelessness	at least one supportive parent early identification early affirmation adult support early recognition of racial differences development of ethnic pride literacy environment	enriched K-12 schooling supportive teachers	supportive spouse	financial assistance civil rights women's rights affirmative action
Barriers for gifted women identified in the literature	fear of failure fear of success imposter phenomenon	(Card, et al, in Kerr, 1985: SES had little effect on bright women's realization of achievement potential)		integrating personal/ professional lives affiliation priorities	sexism others feeling threatened
Additional hypothesized barriers for ethnically diverse gifted women	perceived diffs. from peers peer pressure declining aspirations nonassertiveness	economic hardship	isolation	sense of responsibility to family/ community	racism definitions of merit

taining peer support; strategies for finding mentors and obtaining mentor support; and strategies for coping with role conflicts related to family/community/profession, structural and personal definitions of success, and cultural maintenance and assimilation.

Next Steps

Further research is required to investigate the factors hypothesized from the literature as influencing the achievement of gifted women from diverse backgrounds. The authors currently are directing a research project funded by the Women's Educational Equity Act to empirically identify factors that support or impede the development of gifted women from ethnically diverse backgrounds and to develop and disseminate recommendations for school personnel and parents for supporting the achievement of gifted ethnic girls. The method for investigation is a retrospective analysis of factors based on interviews of sixty prominent African-American, Asian-American, Hispanic, and Anglo women in the fields of higher education, business/industry, and government/law. Based on the findings, recommendations for supporting the needs of culturally diverse gifted girls will be developed.

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Margie Kitano is with the College of Education, San Diego State University and Carol O. Perkins is with the Women's Studies Program at Stephens College, Columbia, MO.

Gifted Females: They've Come a Long Way – Or Have They?

by Sally M. Reis and Carolyn M. Callahan

Headlines in a recent weekly news magazine proclaim that the gender gap on test scores is shrinking. "The notion that boys best their sisters in mathematics and that girls excel in language skills is a powerful stereotype and one that has seemingly been confirmed by results on standardized tests. But like so much of conventional wisdom, those notions may soon have to be abandoned" (Begly, 1988, p. 73). *Education Week* (1988) reported on the research of Linn and Hyde, who concluded that sex differences in verbal ability were insubstantial. The *Detroit Free Press* (Flanigan, 1988) and other periodicals (Zigli, 1985) have focused on the successes and barriers to success faced by professional women.

More attention has been given to the issues relating to the potential and achievements of gifted females in the last five years than in the previous four or five decades. This attention has not been limited to the education of the gifted. Articles on this specific topic and many related issues have appeared in popular daily newspapers, monthly magazines, and professional journals in other areas of education. In addition, a considerable body of literature on gender differences and the meanings of previously accepted definitions of terms, acceptable approaches to the study of gender differences and the meaning of prior findings has evolved in the psychology literature.

One might expect educators involved in working on behalf of gifted females to be pleased by the attention of the popular press and by findings such as those of Linn and Hyde, and Feingold (1988) which suggest fewer discrepancies between standardized test scores of males and females. However, before we become overly enthusiastic about these developments, it is important to look closely at the real implications and potential dangers of this attention. In fact, Chipman (1988) has noted that "the subject of sex differences in behavior and intellectual potential is far too sexy a topic, of much more interest than it should be," resulting in the reporting of any research regardless of the quality of the research or the real significance of results. Further, the reporting of even miniscule sex differences in cognitive functioning and personality often results in the translation of these results into categorical assumptions about individuals which belie the broad variation within each sex.

Second, the reports of such data as a shrinking of the gap between male and female scores on standardized tests may lead to unwarranted complacency. Take, for example, the current reports of research by Feingold (1988). Using the norms from the four standardizations of the Differential Aptitude Tests given between 1947 and 1980 and from the Preliminary Scholastic Aptitude Test, and the Scholastic Aptitude Tests given between1970 and 1983, he examined patterns of differences. He found that on tests of language, spelling, and clerical skills, girls still outperform boys by a small margin. Boys outperform girls on measures of spatial visualization, high school mathematics, and mechanical aptitude. In addition, according to this research, gender differences, except at the upper levels of performance in high school mathematics, have "declined precipitously over the years surveyed, and the increases in these differences [in high school mathematics] over the high school grades have diminished" (p. 95). Feingold found no gender differences on tests of verbal reasoning, arithmetic, and figural reasoning.

While some educators may consider this good news, a more careful analysis is necessary. Certainly, it is encouraging that overall differences are decreasing. Yet, early research by Terman included findings on the gifted population which were very similar to those which Feingold reports on the general population. In 1925, Terman stated, "There are only small sex differences in the subject-matter achievement of these gifted children, although the boys of 9 years and above are somewhat superior to the girls in arithmetic, while the girls of 10 and above are slightly superior to boys in language usage" (Terman and Oden, 1925, p. 293). But what happened to these females who were slightly superior to boys in language usage and especially those females who were deemed the most talented writers in

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the sample? When the Terman sample was examined in adulthood, nearly all the eminent writers were men. Only 48% of the gifted women in his longitudinal study were employed full-time in 1940, and 30.8% of that group were working as secretarial and clerical help (Terman and Oden, 1947). Fifteen years later, in 1955, half of the women were still housewives and only 42% held full-time jobs. Although such results are not unexpected given the times in which these women made college, career, and life decisions, it is evident that equal ability and achievement do not guarantee equal opportunity to achieve success and satisfaction with career choice.

Similarly, research over the past several decades has consistently demonstrated that females received higher grades than males throughout elementary school, high school, and college (Achenback, 1970; Coleman, 1951; and Davis, 9164). If grades attained by females have been consistently higher and if the gender gap between standardized test scores has been minimal in the past and continues to close, we might reasonably expect to see the performance gaps in careers, professional accomplishments, and consequent financial benefits also closing. This is simply not the case. Although now nearly half of the work force in the country is female and advertisements, television shows, and statistics of women entering graduate school all seem to indicate that females have come a long way since the 1950's, a more careful analysis of current statistics indicates that the struggle for equity has far to go. Why, for example, are less than 2% of American patentees women (Axelrod, 1988)? Why, when over 51% of the population of high school students are female and when Feingold (1988) demonstrates a disappearance of gender differences on the Preliminary Scholastic Aptitude Tests, are just 36% of this year's National Merit semifinalists female (Ordovensky, 1988)? Why are there only two females in the United States Senate, one female on the Supreme Court, and one female cabinet member? Why do women constitute less than 5% of the House of Representatives, own only 7% of all businesses in this country, constitute less than 2% of all school superintendents, 9% of all college and university presidents, comprise only 10% of all full professors at the college level, occupy only 5% of the executive positions of power in American corporations, hold none of the leading positions in the top five orchestras in the United States (including concertmaster, principal cello, bass or viola, oboe, clarinet, horn, trumpet, trombone, tuba, bass or percussion); represent only 4% of engineers, 13% of lawyers, 13% of doctors and 7% of architects? (Schaffer, 1986) Not only do women not achieve the level of recognition we might expect, but we also find that the fully employed woman who has graduated from college will earn, on the average, the same amount as a fully employed man with only a high school diploma (U.S. Bureau of the Census, 1985).

Of course, there are those who raise the concern that female accomplishmentbe measured not only in terms of career and professional success. As early as 1955 Melita Oden noted that:

> *There are many intangible kinds of accomplishment and success open to the housewife, and it is debatable whether the fact that a majority of gifted women prefer housewifery to more intellectual pursuits represents a net waste of brainpower. Although it is possible by means of rating scales to measure with fair accuracy the achievement of a scientist or a professional or a businessman, no one has yet devised a way to measure the contribution of a woman who makes her marriage a success, inspires her husband, and sends forth well-trained children into the world. (Terman and Oden, 1959, p. 145).*

There are many problems with simply assuming that gifted women really do prefer the traditional role of homemaker. The world has become a very different place for women. Although the contributions made by women in the role of wife and mother must not be denigrated, we must face some of the realities. Women now make up more than half of the work force; some by choice, but many because they must work to support themselves or their families. Yet it is clear from the above statistics that bright women are clearly adult underachievers.

The underachievement of adult women, then, is a totally different concept from the underachievement of younger women, for it defies measurement by the grades one achieves in school. We might consider it in comparison with male standards of profession, status, career-related accomplishments, satisfaction, and productivity, or it may be that we have to reexamine the concept of underachievement of bright women who do not achieve similar pro-

fessional accomplishments as their male counterparts (Reis, 1987, p. 184).

Evidence suggests that there is no reason that "successful professional" and "wife and mother" must be mutually exclusive categories. A recent study of marriage, motherhood, and research performance in science indicates that married women with children publish as much as their single colleagues do (Cole and Zucker-man, 1987). Many bright women choose alternatives other than homemaking or in combination with marriage and family, and many more will be forced to enter the world of work in the future. If we believe that each individual should have both the opportunity to develop full potential and to make choices about how best to achieve personal fulfillment, then we must seek better understanding of, and programs for, gifted females.

All of this suggests a reconsideration of what we must consider in creating a research agenda and in interpreting the finds on sex and gender differences (or nondifferences) as we plan curriculum and programs for the gifted. Among the first issues we must consider is the importance of sex differences and the importance of gender differences, and be very clear on the distinctions between the two. We define sex differences are those differences generally attributed to a biological basis; gender differences are a result of socially attributed categorizations. Our interpretations of the sources of sex or gender differences, the size and import of differences, and the degree to which these differences lead to differential performance are also of crucial importance. Some consideration of the potential bias in our research and practices based on the historical domination of men in the fields of psychology and education – particularly in academia – is also important.

What Does Current Analysis Tell Us Of the Differences Between Males and Females?

Hyde and Linn (1986) brought together a series of meta-analyses of studies relating to the psychology of gender differences. The meta-analysis of data relating to causal attributions of success and failure contradict the widely held beliefs about sex differences in attribution. Whitley, McHugh, and Freize (1986) concluded that the achievement attributions of males and females are very similar and, noting that the mean effect size was less than .2 standard deviations, concluded that those small significant differences which were found are really quite meaningless. They further concluded that men are a bit more likely to attribute both success *and* failure to ability. Becker's (1986) meta-analysis of the dimension of susceptibility to influence led her to the conclusion that differences in influencibility were of very small magnitude.

Linn and Peterson (1986) examined underlying differences to explain the undisputed sex differences in occupational choice—the lower representation of women in mathematical, scientific, and technical occupations. First they point out that spatial ability has been the "cognitive ability of choice" among those trying to explain these sex differences, despite the lack of evidence that spatial ability – independent of general ability – is related to science or math achievement. Then they note that spatial ability is not, in fact, a unitary concept and point out that the definition and type of instrument used has great influence on whether or not sex differences are identified. Finally, they conclude that on traditional tests normally thought to measure spatial ability very small sex differences are found; that larger differences are found on a task calling for mental rotation of block forms. Yet, they argue that even those findings do not warrant conclusions that spatial abilities account for differences in adult achievements in mathematics and science.

Chipman (1981) in her review of these studies of sex and gender differences suggests that the important issues are no longer whether or not there are sex differences. Pointing out the infrequency with which these differences are identified, the relative lack of predictability from those that are identified (estimates of variability in adult achievement accounted for by these statistically significant abilities ranged from a low of 1% to a high of 5% (Hyde, 1981), she suggests that research needs to be reoriented toward potentially more productive questions.

The focus of research in these areas now needs to address factors that mediate gender differences in achievement and variables which can be manipulated in the environment in order to ensure that females' development is not inhibited and choices are not foreclosed. Further, the time has come to examine the individual differences within girls to determine those characteristics likely to be influenced by the environment and those experiences and conditions conducive to full development of potential.

More Promising Research Directions

Although research related to gifted females is more prevalent than it was a decade ago, it is not necessarily aimed at answering the questions raised above. We must recognize that "underlying the problems of achievement and motivation of gifted and talented females lie hypotheses yet to be tested and perhaps untestable in the experimental tradition" (Callahan, 1979, p. 412). Even though we cannot expect to control environments in which children are raised nor can we expect to radically alter our society within the next few years, there are means through which many of these questions have and can be addressed.

For example, in considering the differences in interest in math and science, Eccles (1987) points out that it is more profitable and important to look at internal comparisons made by girls as they engage in decision-making rather than comparing boys to girls. She points out that, after all, when we make decisions we ask ourselves what we are better at doing and what we value rather than asking if we are better than others or value something more than others. Accordingly, she examined the degree to which young women felt they were more or less capable in math and English over time and the degree to which they valued these disciplines. Eccles notes that it is not sufficient to simply describe these differences. We must also look for factors which may influence these differences and distinguish females who choose to continue to select math and science courses and careers from those who do not.

Asking the question, "What goes on in math and science classes which may affect the confidence of these girls and their values," she draws several conclusions from the extant literature on math and science teachers who have been successful in keeping females interested in mathematics and science. She notes a pattern of conditions which distinguish these classrooms:

- frequent use of cooperative learning opportunities,
- frequent individualized learning opportunities,
- use of practical problem in assignments,
- frequent use of hands-on opportunities,
- active career and educational guidance,
- infrequent use of competitive motivational strategies,
- frequent activities oriented toward broadening views of mathematics and physical sciences – presenting mathematics as a tool in solving problems,
- frequent use of strategies to ensure full class participation.

As she points out, these factors counteract out-of-classroom pressures and influences on females. She further suggests other aspects of our society that seem to influence the differential achievement of males and females. She supports the need to examine these factors and to develop means to counteract the effects.

For example, strong stereotypes exist in our society regarding natural talent and who has it. Achievement in math and science are more often linked to innate abilities than is achievement in any other disciplines. Further, our culture subscribes to an assumption that males are more likely to have those innate abilities. In other cultures, success in math and science are attributed to degree of effort put forth. Failure is attributed to lack of effort rather than lack of ability. Exploring this possible ethnic difference, Brandon, Newton, and Hammond (1987) examined mathematics achievement across four ethnic groups in four grades in Hawaii. Not only did they find that high-achieving girls outperformed high-achieving boys, with these differences increasing across grades; they found that the sex differences favoring girls among Caucasian students to be less than those among Japanese-American, Filipino-American, and Hawaiian students. The authors of the study conclude that "the cultural factors accounting for superiority of Caucasian boys over Caucasian girls in mainland United States might be influencing Caucasians in Hawaii" (p. 458). They further suggest that the data strongly support the consideration of the socio-cultural factor in any study of sex differences in mathematics achievement. This also suggests many socio-cultural factors which must be considered in designing studies to identify influences which impede female achievement and effective strategies for countering those influences.

Another factor identified by Eccles and her colleagues is parental expectations. Parsons et al (1982) conducted a study of the effect that parental beliefs and expectations have on their children. First, the sex of the child had a significant effect on the parents' assessments of the child's ability in mathematics. Although the boys and girls had performed equally well in math the previous year, as well as on a recent math test, parents of daughters believed their

daughters had to exert more effort to do well in math than did the parents of sons. Perhaps more significant is the finding that the children's beliefs about their abilities in math were more strongly influenced by their parents' expectations than by their own past performance.

Eccles reported, in 1984, that even when girls and boys were both earning A's in math and English, girls were considered by their parents to be better in English and boys to be better in math. Even when girls had higher grades, higher standardized test scores, and higher teacher ratings in math, parents believed that math was harder for girls than for boys. In 1986 she found that parents rated advanced math courses as less important and English and history as more important for their daughters than for their sons. In addition, these young girls had lower confidence in their math abilities than in their English abilities and, as we might expect, lower expectations for future success in math.

Further, building on the findings that career choices are based on stereotypes of occupations, values attached to occupations, and perceptions of the degree to which ability and effort relate to success in the field, she found that young women attributed success in traditionally female careers as due to ability and success in male-stereotyped occupations as attributable to hard work and luck, with male occupations perceived as considerably more difficult. Women who did choose to enter male-dominated fields attributed success in those fields to ability and other stable, internal characteristics. These women also rated the value of math higher than did those who chose other occupations. Farmer (1985) also studied the aspirations and motivation of young women and found that high aspiration is influenced most by perceived support for women working in the field and by teacher support. She also found the effect of environment was much stronger for females than males. These research avenues begin to suggest patterns for understanding differences in adult achievement and means of addressing those differences.

Subotnik (1988) has also completed research on science and math achievement. In an examination of the attitudinal variables characterizing students who have achieved success in science (146 winners of the 1983 Westinghouse Talent Search), she found that female subjects "...reported more concern with social impacts of scientific research, less variability in their self-image as a scientist, and a tendency to attribute success to hard work and dedication rather than intelligence or creativity than did male subjects..." (p. 19). The relationships between these perceptions, the perceptions of those who ultimately enter and succeed in these fields, and the factors that mediate that success are still unanswered research questions.

Another line of research on the kinds of environmental conditions that influence achievement questioned the biological or innate ability explanations for sex differences in mathematical performance of the SAT (Pallas and Alexander, 1983). Increasing the number of courses taken by females in advanced math courses related to decreased differences in the performance of males and females on the SAT, suggesting that experience and socialization have an impact on this performance and a need for research on those factors which can be controlled by the school experience.

To some degree this issue has been addressed. We have seen an increase in the number of mathematics and science courses taken by females at the high school level. However, there is a danger of regarding this as indication of changes which may or may not have occurred. That is, there is a danger that increased enrollment in mathematics and science will give us a false sense that fundamental values, attitudes, and achievement aspirations are really changing, when what we really are observing is an artifact of increased requirements for graduation resulting from the educational reform movement. In other words, data that indicates that females are enrolling in more high school math and science courses may be true, but misleading and falsely encouraging information.

Increased course enrollment may reflect nothing more than state and local requirements for earning honors or academic or other special diplomas. It is certainly encouraging to hypothesize that a full spectrum of course-taking in mathematics and science courses will counter the trend of sex stereotyping and lessen the chance that females will restrict future options through failure to take these courses. But the fundamental question remains unanswered. Have these young women developed interests, values, skills, and attitudes (toward their own abilities and toward these disciplines) that are

likely to result in the continued pursuit of courses and careers in mathematics and science? Are parents, teachers, and counselors truly encouraging the additional course-taking with a clear message that such courses are important and that young women can be successful in these classes which form the basis for *continued pursuit* of math- and science-related careers? Or is the message one of, "Just take this math and you will get a governor's diploma," or, "You need to take this to get into the right college, but then you will never have to take another course like this," or, "Don't worry, you don't really need this course in the future. It's just a high school requirement."

Not only are the patterns of math and science course-taking and attitudes toward these subjects crucial for the rest of this decade and the next, but the emerging use of computers as an essential tool in nearly all disciplines makes the study of the impact of instruction and media on females another area of critical concern. Sanders and Stone (1986) report that males outnumber females 3 to 1 in computer camps and the sex difference is even greater in the more expensive camps, suggesting that parents are willing to spend more on males. *The Washington Post* (1986) reported that the computer industry estimates that women purchase fewer that 10% of personal computers and *PC World* reported that more than 80% of subscribers are male. The *Post* also reported that an executive of a major computer company reported that 98% of their market is male and said, "We do not feel that women represent any great untapped market."

A third essential type of research which is needed is longitudinal studies of gifted females. Of particular importance is the need to identify those critical times at which various blocks to achievement are likely to occur, means of identifying those influenced by those barriers, and the short- and long-term impact of intervention programs.

An excellent example of this type of research is being completed by Arnold and Denny (1985) who are now in the seventh year of a study of male and female high school valedictorians and salutatorians. Emerging gender differences caused them to hypothesize that society may be losing the talent of some of our brightest young women. They discovered women's estimates of their intelligence lowering between high school and their sophomore year in college as compared to their male counterparts. These women also had lower career aspirations and less ambitious goals as sophomores than when they graduated from high school. This finding is consistent with previous research demonstrating an increased incidence of underachievement for bright females in college and after the completion of education (Bayley and Oden, 1955; Maccoby and Jacklin, 1974). This phenomenon, coupled with findings that female career aspirations were moving away from medicine, has led them to explore the effects of concerns raised about merging family and career on overall career aspirations.

Other longitudinal research conducted on females who participate in a gifted program in which counseling and other interventions (female role models and an infusion into the curriculum of female accomplishments in a variety of areas) are provided from elementary through high school is in progress (Reis, in press). Results from this research suggest that female participation in advanced mathematics and science classes can be successfully increased through such intervention. It further documents that the products completed by males and females across grade levels do not differ significantly in quality and that equivalent numbers of males and females initiate advanced-level work when given the opportunity (Reis, 1981).

Final Words

In considering the research that still needs to be done, we must begin to frame that work within the context of a sound theoretical framework of development of gifted women. The study of abilities, attitudes, and values without any theoretical framework or empirical evidence of the relationship between those differences and achievement must be avoided. For example, of what value is the discovery of sex differences in an ability, such as mental rotation ability, when we do not understand the significance of that ability in mathematics learning? Further, our research should be designed to allow for maximum understanding of the processes of learning and development in order that all individuals have the maximum choice in career and life decisions. This research on learning and development of gifted females should provide direction for translating theory into practice in appropriate educational strategies to enable these young people to realize their potential.

Most important, we must not allow the findings of sex or gender differences to lull us into categorization or stereotyping of any individual. To find that males and females differ on a variable as a group is not a basis to assume that all males share more or less of a given characteristic, while all females are on the opposite end of the continuum on that same characteristic.

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Sally M. Reis, Ph.D., is an instructor in the Teaching the Talented Program, School of Education, University of Connecticut, Storrs, CT 06268.

Carolyn M. Callahan, Ph.D., is a professor of Educational Studies in the Curry School of Education, University of Virginia, Charlottesville, VA 22903.

Living out the Promise of High Potential: Perceptions of 100 Gifted Women

by Kathleen D. Noble

Many issues are relevant to human growth and development, but the study of the gifted has special significance. From this population our cultural, political, educational, and spiritual leadership has historically arisen. To date, however, very little attention has been paid to the emotional and social development of the gifted in general, and of women in particular. We know little about gifted women's psychological development and needs, the unique problems they encounter in their personal and professional lives, and the costs to themselves and society of not having their marked abilities recognized and nurtured.

What little data exist suggest that at the elementary school level, at least one-half of all children *identified* as gifted/talented/highly capable are girls; by junior high school, less than one-fourth are still so identified (Clark, 1983; Silverman, 1986). By adulthood, it is likely that the majority of gifted women will settle for far less than their full potential, while most of their male peers will go on to positions of leadership in education, science, industry, the arts, and other sectors of society (Kerr, 1985).

The role of sexism in obscuring the recognition and expression of giftedness in women is irrefutable. Our society has a long-standing history of ambivalence toward highly capable women, and over time many women internalize that ambivalence.

Being female means that even if she gets A's, her career will not be as important as that of a boy who gets B's. Being female means that *she* is not important, except in her relationships to boys and men. Being female also means being given ambivalent messages. Parents and teachers rarely will tell a girl that she is less important than her brothers and other boys...The message of her inferiority will be communicated in more subtle ways: by a lack of concern, by failure to fully nurture her potential for growth and development, by not expecting her to succeed at difficult tasks. And because the messages are mixed, a woman may feel that her mother's, father's, or teacher's lack of attention to her stems from some specific failing of her own. Internalizing the voices of her oppressors, the currents of her feelings of inferiority and self-hatred run strong and deep (Christ, 1980, p. 15).

Even when women do succeed in taking themselves seriously, many find that they have only a limited range of options through which to express their abilities. As a culture, we acknowledge and reward only those talents and abilities that have direct, marketable value, and what has value has largely been determined by and for men. We tend, therefore, to dismiss "gifts" that aren't rewarded materially or that aren't technologically oriented, and we discount those that are stereotypically "female" – the ability to love, to understand, to empathize, to be compassionate, to be altruistic, to cope, to survive, and to live life with grace, integrity, and authenticity. Yet, by failing to appreciate the value of these abilities in ourselves and others, we perpetuate a misogynistic and constricting conception of giftedness. This is an important and complex issue, but beyond the scope of this paper. Readers are referred to Getzels and Dillon (1973) and Gilligan (1982) for further elaboration.

Clark (1983, p. 356) questions whether the "secure, self-sufficient, successful, self-actualizing gifted woman is commonly found in and supported by our society." Certainly social support is generally lacking, but I don't believe the gifted woman is not "commonly found." Rather, I believe that a significant part of the problem lies in our reluctance or inability to recognize giftedness in women, and that part of the solution lies in teaching women to recognize, accept, and nurture giftedness in themselves and each other.

This paper will address three primary issues. First, it will present an overview of the current literature relating to the psychological, social, cultural, and cognitive issues confronting gifted women as they strive to develop their potential. Woven into that discussion will be data gleaned from a 1986 pilot study of the lives of 100 contemporary adult gifted women residing in the Pacific Northwest region of the United States. Second, it will suggest the kinds

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of psychological interventions which would enable psychologists and educators to maximize the development and achievement of highly capable women. Third, it will pose some research directions which would add substantially to our knowledge base. Before addressing these issues, however, a brief description of the subjects and setting of the aforementioned pilot study will be offered.

Women of High Potential: Participant Characteristics

The first "Women of High Potential" conference was held at the University of Washington in September, 1986. This conference was organized around three primary goals: (a) to provide a forum within which highly capable women from different age groups, ethnic background, occupations, and areas of interest could explore the meaning and impact of giftedness in their lives, (b) to enhance their understanding of how giftedness could be nurtured or inhibited in self and others, and (c) to offer an opportunity for participants to interact with other gifted women for support, mentoring, and the creation of opportunities for personal and professional growth. The conference also enabled its organizers to gather information about participants' perceptions of the joys and challenges of their giftedness, and to build a platform for further research.

Of the 142 women who attended the conference, 109 chose to complete a lengthy questionnaire. The questionnaire was designed to corroborate and amplify current research findings by specifically asking participants about the presence in their lives of issues which appear to confront other gifted women (Noble, 1987). The questions were posed in the form of checklists, Likert-scale response choices, and open-ended questions from which were derived categories for quantitative and qualitative analysis.

Who were these women? Their average age was 39, but respondents ranged from 19 to 79 years of age. They were predominantly Caucasian (93%). Half were married or living with a partner, 20% had never married, and 20% were divorced. A few of the women were widowed, and slightly over half were parents. Most (87%) had graduated from college, although only one-third of their mothers and one-fifth of their fathers had done so. Almost two-thirds (60%) attended or currently attend graduate school, and the overwhelming majority (97%) were working outside the home in professional, technical, or managerial positions (77%).

Unfortunately, only a small number of minority women attended the conference, and most participants were well-educated and well-employed; thus, our group was not representative of the multicultural urban environment in which the conference took place. The conference organizers experienced difficulties in reaching women who are ethnic minorities and those who are less aware or unaware of their level of ability, such as university secretaries, women in rural communities, culturally/economically disadvantaged women, and homemakers. Future conferences and research projects will attempt to involve more women from underrepresented groups.

It was interesting to the organizers that approximately 60% of the respondents had been identified as "gifted," "talented," or "highly capable" at some time in their lives, usually between the ages of 5 and 15. Although most (83%) felt they were gifted or possessed high potential, the rest weren't sure. Yet some of the comments of those who perceived themselves as gifted were highly revealing, and I believe poignantly introduce some of the issues which confront highly capable women:

I have always done well, been at the top of the class, skipped 6th grade, succeeded in college and in my work, but still tend to see my limitations rather than my 'gifts.' Just last year – age 41 – I realized that I might be very gifted. And it is hard to say that – even anonymously and on paper.

I always knew I was different but didn't label it until this conference.

I was identified at age 10, but 36 is the age at which I seriously took this information and made it mine.

Issues Confronting Gifted Women

It is evident that men have been more prominent and more numerous in areas of high achievement, but they have been so by reason of differing opportunities rather than differing abilities. In any case, the issue is not the relative superiority of men or women, but the neglect of talent among those of the female population

who are, in fact, gifted or may be found to be so (Getzels and Dillon, 1973, p. 712).

Although there is a dearth of literature related to giftedness in women, some patterns and trends have been identified and will be discussed in this section.

Personality Correlators

Several researchers have found that gifted women score more like males than women not identified as gifted on measures of self-concept, interests, values, and personality (Callahan, 1980; Mills, 1980; Solano, 1983; Wells, Peltier, and Glickauf-Hughes, 1982). From an early age, they appear to be more achievement oriented, more interested in nontraditional professions, more rebellious against sex role stereotyping, and more rejecting of outside influences that hinder their development than are their female peers of lesser ability. They also appear to be more androgynous, to have higher self-esteem, and to show a great deal of persistence in the face of adversity (Blaubergs, 1978; Hollinger, 1983).

The conference data certainly supported this sense of persistence. The majority (60%) of our group, when asked how they coped with a variety of obstacles to the development of their abilities, described strategies that invoked problem-solving and planning ways out of or around the obstacles. A minuscule number of respondents said they had given up or consciously compromised themselves.

The appearance of psychological androgyny does not imply that gifted women are more "masculine" than other women; rather, they seem to combine the characteristics, values, attitudes, feelings, goals, and expectations of both sexes. For example, like other women, they feel strongly compelled to nurture, care deeply about relationships and family life, and experience difficulties placing their own needs above those of others (Rodenstein and Glickauf-Hughes, 1977; Silverman, 1986).

Again, our data agreed with these findings. When asked to elucidate the major sources of joy in their lives, 48% described relationships with family, 42% described work and personal accomplishments, and 41% said their relationships with friends were highly significant. But for more than one-third of our respondents, conflicting demands of home and family had led to a change in career aspirations in adulthood and was currently influencing the development of their potential.

Social Pressures

Many studies suggest that, unlike gifted males and females not identified as gifted, almost all gifted women have found it necessary at some time in their lives to hide their abilities in order to survive socially. Several factors contribute to this.

First, cultural ambivalence toward female independence takes its toll on the ranks of gifted women. The majority of these women are gradually conditioned by the educational system and by parents to view themselves as less capable than males, and are socialized to be passive, to avoid taking risks, to hold lower expectations for success and to eventually discount their own skills and accomplishments (Blaubergs, 1980; Fox, 1981; Hollinger and Fleming, 1984; Whitmore, 1980). Further, male and female teachers appear to like gifted males better, consider them more capable, and negatively perceive qualities in gifted females that they positively perceive in males, such as analytical skills, originality, and nontraditional approaches to learning and problem-solving (Blaubergs, 1980; Cooley, Chauvin, and Korner, 1984; Fox, 1981). One-third of our subjects had been discouraged by both parents during childhood and adolescence from developing their abilities, while 20% felt that they were discouraged by both male and female teachers. One-fourth indicated that they had to change their career aspirations as children because of parental disapproval.

Second, the preadolescent peer group tends to reject a girl who appears to be too smart or too successful, and this trend does not appear to reverse itself over time except in certain highly selective environments such as all-female high schools or colleges (Tidball and Kistiakowsky, 1976). Consequently, gifted females often feel they must choose between developing their abilities and being rejected socially or considered "unfeminine" (Callahan, 1980; Fox, 1979; Schwartz, 1976). While 75% of our respondents said they had had to hide their abilities at some time from *both* males and other females in order to be accepted, 66% had experienced some kind of social rejection from males for being bright. A third of our sample (35%) felt they had been discouraged from developing their potential in adulthood by spouses or partners, and 25% had changed their career aspirations because of this disapproval.

Third, gifted females frequently encounter hostility toward their abilities, not only in com-

munities which devalue intellectual gifts in women, but also in settings which tacitly support both traditional and non-traditional aspirations in women (Fox, 1981; Kirschenbaum, 1980; Silverman, 1986). Unfortunately, we do not know how often this hostility takes the form of violence against women. To my knowledge, no investigation has yet explored the representation of gifted females among populations of sexually, physically, and/or emotionally abused women and girls. Yet, as Whitmore (1980) observed, there is a definite tendency among children and adults to punish and reject the person who is different. Such treatment will undoubtedly obscure the expression of giftedness in some women and compromise others' ability to take their gifts seriously and cultivate them assiduously.

Cultural Expectations

Roeper (1978) observed that the real milestone in the history of the gifted female was the advent of the women's movement, because doors were finally opened to women that had previously been closed. It is true that women have made progress over the past twenty years, and that more women have access to more educational and employment opportunities than ever before. But mainstream culture changes more slowly than many of us would wish, and despite these new opportunities, gender-role stereotyping and the strength of traditional values systems frequently burden gifted women with what has been described by Rodenstein, Pfleger, and Colangelo (1977) as a classic double bind. That is, the traditional behavioral expectations for gifted individuals and women are often inconsistent and mutually exclusive. For example, gifted students are usually expected to succeed in traditionally male-dominated fields such as science, math, law, medicine, and business. Yet gifted females are generally not encouraged and are frequently discouraged from studying science and math, and gender-role stereotyping still affects the number of options females perceive as acceptable and attainable. We found that over 50% of our respondents were *not* encouraged to enter math/science careers, and only one-third had been encouraged to take math and science courses in junior and senior high school. Further, more than one-third of our sample had changed their career aspirations in childhood or adolescence because of gender-role socialization, although in adulthood the conflicting demands of home and family were perceived as equally damaging to career aspirations and the development of potential. Of course, sensitivity to these demands can readily be viewed as another manifestation of gender-role socialization.

When women do enter nontraditional fields, as did Barbara McClintock, a brilliant scientist whose life work in cytogenetics is revolutionizing the field of molecular biology (Keller, 1983), many have no role models, mentors, support systems, or traditions for dealing with these new opportunities. Further, women are still expected to be less intelligent, to earn less and be less educated than their male partners, and to interrupt their careers when demands of their mates and/or children interfere (Blaubergs, 1980; Cox and Daniel, 1983; Fox, 1983; Higham and Navarre, 1984, Schwartz, 1980).

For some gifted women, the consequences of dealing with this double bind can be fatal. Russo, Miller, and Vitaliano (1985) estimate that the rate of suicide and morbidity among female physicians and medical students, for example, although similar to that of male physicians, medical students, and males in the general population, is *three times* that of females in the general population. "They have greater accessibility to lethal means of suicide... females have difficulty integrating their traditional roles with those of the physician; they encounter hostility in a traditionally male-oriented environment; and they lack mentors and support" (p. 118).

Finally, it is important to note that racial discrimination was perceived to be a major and current obstacle for all the minority women who attended the "Women of Higher Potential" conference, and all these women felt they had had to change their career aspirations throughout their lives because of it. The fact that knowledge about the particular difficulties encountered by gifted women who are members of ethnic minority groups is virtually nonexistent makes it critical that we attend to this issue in future research efforts.

Cognitive Styles

Another factor contributing to the psychological discouragement experienced by gifted women is lack of self-confidence. Many studies have demonstrated women's tendency to internalize responsibility for perceived failure or lack of opportunity (Covington and Omelic,

1979; Dweck and Licht, 1980), while men tend to attribute success to ability, and failure or disappointment to "chance" or an external factor. Our data supported this tendency with 50% of our respondents citing lack of self-confidence as the *major* reason for changing their career aspirations throughout their life cycle, and as the *primary* obstacle inhibiting the development of their potential. Certainly respondents perceived external factors such as gender discrimination, the demands and/or disapproval of parents/teachers/significant others, economic hardship, and lack of adequate training or education as contributing to their difficulties in cultivating their abilities. But none of these factors approached the strength of lack of self-confidence as a destructive force in these women's lives.

Gifted women are often handicapped by their tendency to view mediocrity in any area as a loss of self-esteem, and the turning down of an opportunity as a loss of potential and consequently, a personal failure (Silverman, 1986). To corroborate Silverman's observation, we asked our sample to respond to the statement "I feel that not taking advantage of every opportunity is a personal failure" and found it to be true for almost half (43%) of the 109 subjects.

Many gifted women also experience a profound sense of inadequacy which frequently manifests as an "impostor" mentality, characterized by a pervasive anxiety that one's facade of competence will eventually be discovered, resulting in failure and humiliation. Among our sample, for example, 34% felt they were less capable than others perceived them to be. Eventually these perceptions will lead to a crippling or paralysis of exceptional ability. The result of struggling with cultural confusion about what is and is not appropriate for gifted women can be underachievement, underemployment, chronic dissatisfaction with one's life, depression, anxiety, illness, eating disorders, perfectionism, isolation, and the exhaustion of the superwoman syndrome.

These issues are certainly alive for most women, but gifted women are affected much more powerfully and deleteriously because of their "enormous awareness of the complexities and dangers of the world" (Roeper, 1978, p. 7). Although Garmezy and Tellegen (1984) have argued that intelligence serves as a major protective factor for individuals in coping with adversity and life stressors of varying intensity, gender-role socialization mitigates much of this protection for gifted women. Exceptional cognitive ability is frequently accompanied by increased capacities for empathy, differentiated feelings, and relatedness, leading to an enhanced identification with and responsiveness to the expectations of others. When these latter include (as they usually do) the need for women to be dependent, to place attachment to others above attachment to self, to avoid entering a challenging world and competing with men, and to substitute protection from others for realization of potential, it is no wonder that so few women reach maturity with their giftedness intact.

Directions for Prevention, Intervention, and Future Research

Higham and Navarre (1984) and Fox (1981) suggest several factors which are productive of a high level of adult achievement in all people. These include: (a) a secure emotional base, (b) warm, nurturing parents who encourage exploration, (c) parent and teacher encouragement of independent thinking, independent behavior, and tolerance for change, and (d) role model identification, self-acceptance, early success experiences, and self-confidence. Certainly, many gifted women do not grow up in such ideal environments. But psychologists and educators can help to create a climate conducive to the development of superior ability in women by implementing some of the following suggestions:

1. *Psychological education* must be available to gifted females from a very early age to help them make life-style choices, specifically in regard to career and family. Young gifted women particularly need help in dispelling three self-defeating myths: (a) that a choice between having a career and a family is always necessary, (b) that career and life-style planning is irreversible, and (c) that choosing the single life-style will inevitably lead to discontent and dissatisfaction with one's life (Rodenstein and Glickauf-Hughes, 1977). Further, gifted women need to learn that it may not be possible or desirable to live up to the "superwoman" ethos, and that choosing a life-style may involve making some difficult compromises and trade-offs.

When we asked the women in our study to identify the major sources of stress in their lives, a familiar theme emerged: that of achiev-

ing balance among work, relationships, and self; of having sufficient time to develop both the intrapersonal and interpersonal dimensions of high potential. In addition, for almost 50% of our sample, family, work, relationships, and leisure provided roughly equivalent sources of significant joy; thus, achieving balance among all these competing forces is necessary to many respondents' sense of well-being.

But most of us experience great difficulty in arriving at such equilibrium. All women are expected to assume burdens not assumed by most men, but gifted women often find themselves acting as pioneers in their personal and professional lives. How do we cope with such an arduous and often lonely task? I believe we must continually remind ourselves and each other that the challenges we face are universal, sometimes internal and always external, that we must learn to expect less of ourselves in terms of taking care of others' needs to the detriment of our own, and demand more of our partners and our society as a matter of course. I also believe we must not support the current "superwoman" ethos, that we must not accept the exhaustion of our bodies, minds, and spirits as the price we must pay for developing and utilizing our gifts.

2. *Feminist-oriented psychotherapy* to assist gifted women of all ages to develop autonomy, independence, psychological stability, assertiveness, self-confidence, positive self-image, self-esteem, and a sense of social competence is vitally important. Gifted women frequently need help in unlearning a fear of creativity, building confidence in and gaining acceptance for their creative abilities (Schwartz, 1977). Our study further suggests that self-confidence is a crucial dimension to explore, and that psychotherapy should assist gifted women to perceive themselves as gifted, to recognize the toll that environmental discrimination has taken on their self-confidence, and to externalize factors such as discrimination and socialization rather than internalize them as "lack of ability." In addition, gifted women must understand that their perception of their own ability is an essential dimension to explore because their self-perception is usually much lower than their actual level of ability (Hollinger, 1983). We must also keep abreast of research in sex differences in order to assist our clients to understand the prevalence of attitudes and stereotyping that are detrimental to the fullest expression of their abilities. As Navarre (1980) discovered, awareness can greatly reduce the negative impact of sexism on women's willingness to develop and display their gift.

3. *Career counseling* can assist gifted women in planning a life-style which allows for the achievement of leadership status within a career, as well as developing the ability to understand and work with multipotentiality (Rodenstein et al, 1977). Gifted women frequently have the ability to be successful in so many areas and activities that they have difficulty choosing a direction or focus for their lives. We specifically asked women in our study whether they had felt they had more than one option in choosing their life work and 83% said they had. More than half of these respondents said it was very hard to choose what to do. And 94% felt they had the ability to succeed in a variety of areas ranging from academics to engineering to community organization. Yet many interpreted their multipotentiality as evidence of confusion, indecisiveness, or "being scattered" rather than as strength. Encouragement to reframe multiple interests and skills in a more positive light is clearly needed.

Secondary school counselors and college advisors should also make a special effort to alert women students to undergraduate and graduate level scholarship, grant, and fellowship information. As one of the respondents in our study explained, "much of the privilege of high potential recognition and development lies in the ability to pay for nurturance of that development — in time, in attention, and in education." But for many gifted women, money is a barrier to higher education, and "the effects of socioeconomic status on educational attainment are greater for girls than for boys" (Jensen and Hovey, 1982, p. 153).

4. *Specific math/science course and career counseling* should be available throughout a woman's elementary and secondary school career. Gifted females, like their less able peers, are still largely socialized into traditionally female, low-paying occupations. Without adequate preparation in math and science, many will not be able to participate in a socioeconomic system that increasingly demands those skills (Higham and Navarre, 1984). Access to such course work, however, may not be enough. As many investigators have discovered (Blaubergs, 1980; Cooley, Chauvin, and Karnes, 1984; Fox, 1981; Rodenstein, Pfleger, and Colangelo, 1977), many gifted girls are unlikely to receive sufficient academic prepara-

Student Art Work
Kerry Kennedy
Los Osos Middle School

tion or counseling at the K-12 level, because many teachers believe male students are inherently better at those subjects, and many counselors do not perceive careers in scientific or technological fields as appropriate for females.

We found that one-third of our sample had been encouraged to consider math or science careers by their junior and senior high school teachers, and only one-third were encouraged to take math or science course work during those years of study. Given that our respondents clustered around the 35 to 43 year-old age group, we hope that these percentages have increased substantially for contemporary adolescent women. Certainly there has been an explosion in recent years of programs for adolescent women to expand their knowledge of and interest in scientific and technological careers, and efforts of teachers, counselors, community colleges, and organizations such as the Association for Women in Science. These efforts must continue if gifted girls are not to jeopardize their future options by neglecting adequate preparation in math and science.

5. *Role models and mentors* are crucial, if for no other reason than that "no child will choose a career that she does not know about or cannot identify with" (Higham and Navarre, 1984, p. 52). Gifted women are exposed to fewer same-sex role models than are their male counterparts in daily life, literature, the arts, and the media, and sex role stereotyping is still the rule rather than the exception in educational materials. Opportunities to interact with role models and mentors can significantly enhance a gifted woman's acceptance of her own abilities and career possibilities (Fox and Richmond, 1983; Navarre, 1980, Schwartz, 1980).

When we asked our sample to identify the most significant events in their lives in terms of developing their potential, 60% reported that support and encouragement, principally by teachers and mentors, were the most important factors. All of us who have come to recognize and accept our level of ability must be willing to serve as role models for our students, clients, friends, daughters, and support staff if we sincerely hope to increase the number of gifted women who dare to develop themselves.

6. *Coping in the workplace* is another area which needs to be addressed by psychologists and educators, role models, and mentors. Many gifted women have had the experience of working for or under the supervision of individuals who are less bright or competent than they, or for someone who is threatened by their competence and intelligence. We asked our respondents whether they felt that males or females in positions of authority were threatened by women who are bright/competent: 75% believed men were threatened and 75% had experienced this; 59% both thought and experienced women to be threatened. Further, almost half our sample believed they were more capable than others perceived them to be. The long-term effects of underemployment and underutilization of talent can be devastating for all people, but particularly for those who are gifted. I believe we must strive not only to increase the availability of challenging opportunities for women, but to help them develop the psychological strength to persevere in the face of centuries-old devaluation of women's abilities.

7. *Psychologists and counselors* must be aware of their own expectations, attitudes and behaviors toward gifted girls and women. We must remember that we are products of a culture that has a history of ambivalence toward recognizing or addressing the special needs of the gifted. Some of the ambivalence stems from a fear of creating a caste system, an intellectual elite who will denigrate others who are less able. Another part arises from a fear that recognizing high potential or ability will place

an individual, especially a child, in a high-pressure situation which might compromise her or his personal development. But an even stronger component is the belief that special attention need not be paid the gifted because they will develop satisfactorily and self-sufficiently without it. *This belief is false.* The gifted person will not succeed against all odds, especially if she is female. In fact, without counseling and educational interventions aimed specifically at the challenge of being both gifted and female, the majority of gifted women will continue to disappear (Shakeshaft and Palmieri, 1978).

8. *Women psychologists and counselors* must also become more aware of their own abilities so that they can better nurture the high abilities of their clients (Silverman, in press). Silverman observed that "many feminist therapists are gifted women who do not recognize their own giftedness, and their clientele is frequently composed of unrecognized gifted women" (L.K. Silverman, personal communication, February, 1987). In our study, 20% of the respondents identified therapy or counseling as an avenue of coping for them. We don't know how many respondents had ever sought counseling or how many of their therapists perceived their own or their clients' giftedness, but these are questions worthy of investigation. If we fail to see ourselves in the fullness of our abilities, we cannot see the gifts in others nor empower them to reach their potential.

9. *Psychology training programs* must incorporate specialized course work and training opportunities in gifted psychology. As Silverman (1983, p. 2) observed, "few teachers, counselors, psychologists, or even specialists working with the gifted recognize that the gifted have a unique set of affective needs." Counseling the gifted is a complex activity for which few are or will be adequately prepared unless a body of knowledge based on research is introduced into psychology preparation programs.

10. *The popularity and availability of support groups* for dealing with a vast array of issues and challenges attest to their efficacy in helping people to manage their lives more effectively. For school-aged and adult gifted women, a supportive peer network can provide a means of exploring changing life roles, values, methods of conflict resolution, and strategies for dealing with situations that arise from sex role stereotyping (Navarre, 1980). According to Blaubergs (1980), the problem is pervasive but remediable. "Many parents, teachers, and counselors of the gifted continue to reflect attitudes and sex stereotypes that are detrimental to the expression of the abilities of gifted girls. An understanding of the prevalence of such attitudes and an awareness that they do not reflect a necessary reality, or often any reality at all, can help to remove this barrier to the gifted girl's achievement."

11. *Family counseling and parent education programs* are necessary, since families tend to underestimate or ignore the abilities of gifted daughters. One-third of our sample said they had been discouraged by both parents during their formative childhood and adolescent years, although the majority said they had been encouraged by their mothers (70%) and/or fathers (59%). Many respondents, however, qualified these statements by telling us that their parents had both encouraged and discouraged them simultaneously:

I was told to get good grades but was given no encouragement as to what use they could be put to.

My family said, "When are you going to give this up and get married?"

When I was growing up my parents were always urging me to succeed but criticizing me for being "too ambitious, too independent, too driven, too verbal"; then when I was accepted into a Ph.D. program my mother said, "Don't you think it's time to enter the real world, don't you think you've had enough school now?"

Families especially need to learn ways to support the autonomy and emotional development of gifted daughters to help them learn to contend with opposition, and to understand the meaning and impact of giftedness in an individual's life (Callahan, 1980; Ehrlich, 1982; Schwartz, 1980).

12. *In-service training programs* must be developed for K-12 school district personnel (e.g., teachers, counselors, school psychologists, and administrators) to raise their awareness of the many forces inhibiting gifted female students from developing their potential. Such programs should specifically address the ways in which the educational system contributes to women's systematic devaluation of their own abilities, and undermines their access to opportunities for maximum growth.

The power of the educational environment for gifted females cannot be minimized. For 40% of our sample, educational experiences, particularly at the college/university level, were significant in developing their potential. And although support and encouragement from a variety of sources was considered important by two-thirds of our respondents, one-third attributed the greatest help received to teachers and mentors. Happily, 58% said that female teachers had encouraged them during their pre-college years, and 48% indicated that male teachers were supportive during this time; these figures dropped to 37% and 34%, respectively, in adulthood.

It should be noted that 20% of respondents felt they had been discouraged by both male and female teachers in childhood or early adolescence. Another 20% believed that gifted women tend to hide, deny, disparage, and/or choose not to develop their abilities because the educational system does not value, encourage, or help females to achieve their high potential.

13. *Conferences and symposia.* We were overwhelmed by the powerful and positive response of participants to the "Women of High Potential" conference. Much of the sentiment of the group was vividly expressed by two participants when they said:

Sitting in a room with women who see themselves as women of high potential feels very satisfying. I feel proud. It is a relief not to worry about alienating other people by our self-confidence and capability, trying to read others...it's hard to put into words. I'm talking about peer pressure to play down our ability and potential. That pressure is present with adults as well as with children. I love being around these women.

I am very excited (thrilled!) at the prospect of a center for research on women of high potential. I think of my granddaughter (age 7) who is already being shaped by the system and her parents, and I have hope for her. Those of us who are older and were shaped so subtly and profoundly and, yet, remained nonconformist, different, odd, have been very lonely. How important it is to find a group that is joining people who have had this experience.

Conferences, workshops, and symposia can be tremendously exciting, productive, and revitalizing for everyone they touch. Opportunities for highly capable women to interact, share experiences, and support each other in the search for effective ways to meet and transcend the challenges we encounter in a sexist society are rare, but without them the expression of giftedness will remain, for many, an isolating and dispiriting experience.

14. *Finally, the need for a great deal of research* in this area is unquestionable. Comprehensive research programs must be created to expand existing knowledge about the nature of the psychological development of highly capable women, and the internal and external forces which impair their health and inhibit them from taking advantage of opportunities for achievement. I believe there are several questions which require our urgent attention.

What protective and risk factors shape giftedness in women and what internal and external defenses enable gifted women to cultivate their abilities in the face of adverse social conditions?

Are there specific sources of stress to which adult and adolescent gifted women are exposed, and what effect might these stressors have on their physical and psychological well-being? What processes determine the presence or absence of "stress resistance" under similar backgrounds and exposure conditions? We know from the work of Garmezy and Tellegen (1984) that high intelligence is not sufficient to protect ability from erosion; thus, an investigation of the inner wells from which gifted women draw their strength would yield invaluable and practical information for clinicians of every discipline.

Is there a relationship between childhood abuse and giftedness? What is the frequency with which gifted women are victimized by sexual, physical, and/or emotional abuse, and what are the incidence and prevalence of various forms of self-sabotage among this population – eating disorders, depression, learned helplessness, substance abuse?

What are the special issues affecting gifted women who are members of ethnic minority groups, or who are disabled, or who are culturally or economically disadvantaged? What kinds of programs and intervention strategies could be created to increase their contribution to our society?

Maslow (1972) argued that if we deliberately tried to be less than our best, we would be desperately unhappy throughout our lives. Yet many gifted women have found that the choice to become their best is made at great cost – to

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their relationships with parents and partners, to their friendships, to their sense of safety and security in the world, to their identities as women, and to their mental and physical health. I believe we must create a world in which women can live out the promise of their high potential without sacrificing essential parts of themselves. How? By asking and answering difficult questions such as those posed above, by translating research findings into effective strategies for individual and social change, by supporting each other as we dare to be seen and dare to be heard despite centuries of conditioning to be less visible, less vocal, and less capable. And, ultimately, by planning for a time when the challenge of being female and gifted will become obsolete.

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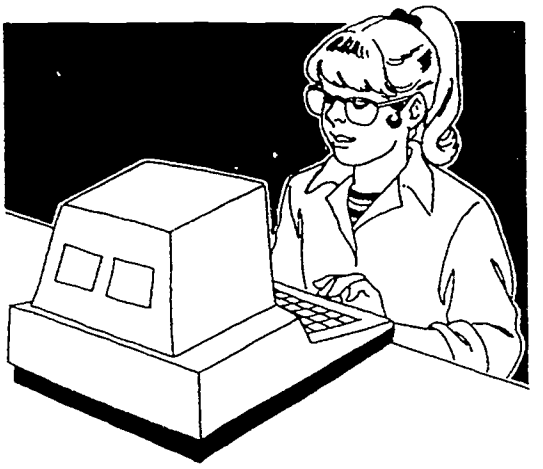

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Kathleen D. Noble is a licensed psychologist in private practice in Seattle, Washington, and currently Acting Assistant Director of the Early Entrance Program at the University of Washington. She founded and chaired three conferences at the University of Washington on "Women of High Potential" and has authored several papers on the affective needs of gifted women.

Quotable Quotes on Grouping

Compiled by Barbara Clark

Here are some recent quotes from prominent writers and researchers that address the issue of grouping in the classroom.

Gifted and talented students need instruction at a level and pace as well as conceptual complexity commensurate with their advanced levels of ability and achievement. Grouping heterogeneously and providing cooperative learning in heterogeneous groups leads to lowered achievement and motivation as well as poorer attitudes toward school. (Feldhusen, J., and Moon, S., Grouping gifted students: Issues and concerns, *Gifted Child Quarterly*, Spring, 1992.)

Grouping gifted students homogeneously for cooperative learning is possible while grouping all other students into heterogeneous groups. Since role models must be somewhat close in ability to those who would emulate them, the removal of gifted students from cooperative learning groups does not harm the work of these groups. (Schunk, D., Peer models and children's behavioral change. *Review of Educational Research*, Summer 1991).

There are times when gifted students should be segregated for fast-paced work individually, and there are times when gifted student should work in cooperative situations. (Johnson, R., and Johnson, D., *The Cooperative Link*, 1989).

Programs of enrichment and acceleration, which usually involve the greater amount of curricular adjustment, have the largest effects on student learning. These results do not support recent claims that no one benefits from grouping or that students in the lower groups are harmed academically and emotionally by grouping... The academic benefits are clearest for those in the higher ability groups, but students in the lower groups are not harmed academically by grouping and they gain academic ground in some grouping programs. (Kulik, J., and Kulik, C., Meta-analytic findings on grouping programs. *Gifted Child Quarterly*, Spring 1992).

If one examines the possible effects of a given grouping strategy on gifted students, it becomes clear that the more they are grouped in terms of contact time, the more their unique educational needs are met. (VanTassel-Baska, J., The ineffectiveness of the pull-out program model in gifted education: A minority perspective. *Journal for the Education of the Gifted*, Summer 1987)

When gifted students work together for part or all of the school day, their achievement surpasses that of gifted students who are not grouped together for instruction. (Kulik and Kulik. Effects of ability grouping on student achievement. *Equity and Excellence*, 1987).

Cooperative learning models do not enhance the achievement of the gifted unless some form of ability grouping is employed. Mixing low ability and high ability students together typically results in no growth for the high ability group. (Slavin, 1986).

Educators cannot differentiate instructional plans for gifted learners effectively without ability grouping in some form. Thus, to eliminate ability grouping for all is to eliminate programs for the gifted and talented. (VanTassel-Baska, J., 1991).

Finally, from the Analysis of the Research on Ability Grouping written by James Kulik in and published by the National Research Center on Gifted and Talented, (1992) come the following guidelines suggested by the research:

1. Schools should resist wholesale elimination of ability grouping.
2. Schools should maintain programs of accelerated work.
3. Schools should maintain programs of enrichment.
4. Schools should use ability grouping to adjust the curriculum to the aptitude levels of the groups.
5. Benefits are slight from programs that group children by ability but prescribe common curricular experiences for all ability groups. Schools should not expect student achievement to change dramatically with either establishment or elimination of such programs.

Barbara Clark, Ed.D. is Professor of Education at California State University, Los Angeles and President of the National Association for Gifted Children (NAGC).

Reverse That Pendulum: Protecting Your GATE Program in Perilous Times

by Ann Laurence Lord

How can we protect our gifted children and the educational programs they need in order to be successful? A recent edition of the *Communicator* included the topics of "scapegoating the gifted," educational reform, and the implementation of cooperative learning. These concepts have something in common. They are all happening right now, and they all have the potential to be dangerous to gifted children. The irresponsibility of blaming the gifted for the ills that plague public eduction was well argued in Dr. Silverman's extensively documented article on scapegoating. The importance of including the needs of the gifted in planning educational reform was well stated by Dr. Seaborg. Articles by Dorsey, Robinson, and Staples explored the strengths and weaknesses of cooperative learning, and how it can best fit into a well balanced educational program for gifted students. This article seeks to build on the foundation laid by those writers and suggest some strategies for protecting GATE programs for children in California and elsewhere.

Present financial circumstances for California education are dismal. Political conditions impacting GATE programs include the overall school reform movement, attacks on the practice of grouping pupils by ability, and a lessening of statewide attention to the needs of gifted students. The educational pendulum has swung away from the gifted. On the national scene, a Connecticut lawsuit was brought by parents who alleged that the learning needs of their gifted children were not appropriately met by the standard school curriculum. The plaintiffs cited federal and state mandated special programs for handicapped pupils as an example of the educational rights of children. The State of Connecticut argued in defense that pupils had a right to *a basic education;* therefore, handicapped pupils must receive special funds and programs in order to rise to that level. The state further argued that "...the goal is not to maximize the potential of each student. Passage from grade to grade demonstrates adequate education benefit." Similar cases were cited from Pennsylvania, New York, and Kansas. The consensus was that states were required to provide an equal and basic education. With such a philosophy being stated on a national level and the competition for funds within the depressed California economy, the immediate future of gifted programs seems bleak.

Within this general climate, the author researched the question of why some school districts in California were able to maintain an excellent GATE program, while a matched group with similar demographic characteristics were unable to do so. The study examined selected administrative factors which were present in districts with excellent GATE programs and missing, or present to a lesser degree, in a comparison group. The good news was that significant factors were found. In order of importance they were:

(1) superintendent support,
(2) additional funding for the GATE program,
(3) school board support,
(4) organized parent support.

No differences between the two groups of districts were found in program longevity or the percentage of administrative time allocated for GATE. In other words, in districts with excellent GATE programs, there was very good support for the program from the superintendent, additional funds were generated or allocated for GATE, the school board was actively supportive, and GATE parents of the district were organized and active. If this scenario describes your school district, there's a good chance that your GATE students and program are well protected. If not, then make it so.

What can be done if some of the factors described above are missing in your district? Form a strategic planning group with parents, teachers, students, administrators, and anyone else who is interested. Since the district superintendent was found to be the most important administrative factor, what can be done if she/he is not supportive of the existing GATE program? Many approaches were enumerated in the final chapter of the study. One strategy was for someone from the planning committee to interview the superintendent and seek out his/

As soon as professionals and lay people are again aware that the development of extraordinary human potential requires specialized educational experiences in a variety of disciplines – not just sports or the arts – the pendulum will begin to swing back toward gifted education.

her ideas for GATE. If those ideas are not detrimental to the welfare of gifted students, immediately incorporate them into the program. If they are, do some brainstorming with your planning group. Meet to set goals and create a strategic plan to accomplish them. GATE support *can* be improved.

If district GATE parents are not organized, or if they participate only at their local schools, changes are necessary. When GATE parents realize that the gifted program is vulnerable, they will respond to a call for help. If the strategy group decides that the superintendent or school board members need to be more supportive of GATE and the group can't envision any immediate tactics for achieving that support, their first project could be to raise additional funds for the district GATE program. Parents represent a wealth of fundraising resources. Foundations, grants, local business, and industry are potential sources. A GATE group that approaches the district superintendent with funds available for the GATE program will clearly demonstrate their seriousness of purpose. The group should also be prepared with recommendations for allocating the resources. Strategy needs to be planned sensitively, so that the overall experience is positive. Parents in particular must be viewed as helpful and supportive, rather than "pushy" or "demanding." The planning group should not hesitate to seek ideas from people in nearby districts or statewide resource persons. Because GATE students represent only a small percentage of the total population, advocates have created a tradition of generously sharing with each other. GATE proponents are known to be extraordinarily giving of their time and expertise.

Although these times are perilous, there is always hope for the future. Practitioners know that education has a cyclical nature. A review of education history shows that special programs for the gifted have been in and out of favor many times. In more than thirty years in education, the author has seen many ideas recycled more than once. GATE may be somewhat unpopular now, but it will come back again. Program structure and focus may be slightly revised, but gifted education always returns stronger than ever. A few more years of the current "one size fits all" curriculum will make it obvious that our most able students are failing to profit. As soon as professionals and lay people are again aware that the development of extraordinary human potential requires specialized educational experiences in a variety of disciplines—not just sports or the arts—the pendulum will begin to swing back toward gifted education. The general public must become aware of society's need for highly skilled problem-solvers, for critical and creative thinkers of all kinds. People need to be reminded that human resources are the most precious resources of all. Furthermore, reforming education for "at risk" and other educationally disabled groups need not be done at the expense of gifted students. Gifted children must not be placed on the "endangered" list. Businessmen and women, as well as legislators, must be shown that numerous independent evaluation reports have concluded that GATE is an extremely cost-effective special program that rewards the input of even modest resources with major positive, productive output. GATE programs really work! Advocates for the gifted can spread that word and raise awareness of the need; however, children who are presently in the school system should not be neglected. Until the pendulum swings back and a turnaround occurs on a larger scale, groups can support their local GATE programs by working to improve the support of the superintendent and school board, by organizing parents, and by providing the additional funds needed to carry on programs of excellence. By focusing on these factors, we can all protect our gifted children and the programs they need in order to flourish.

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Ann Lord is principal of the Mission San Jose Elementary School in Fremont, CA. She is the original founder and program administrator of the K-12 gifted program in Fremont from 1968 to 1984. She served for six years on the California Association for the Gifted Board as Regional Representative from the Bay Area. A more detailed description of the research can be obtained by contacting her at 510/656-1200 or 510/735-0149. Written requests should be sent to Dr. Lord at 2390 Canyon Lakes Dr., San Ramon, CA, 94583.

Student Poems

from

Georgia Brown School
Paso Robles School District

Dusk Waves

As my smooth bare feet brush
against the warm golden sand
and the waves crash against
my ankles, I look out to see
nothing but rippling blue.

As I look farther out I see
the setting sun's tip touching
down onto the water, as it
spreads its orange and purple
light into the deep blue sky.

I can hear the faint cry of a
distant seagull gliding swiftly
through the now violet clouds.

As night takes over day, the
sky is darkened along with
the sea and when the moon
appears, it shines as a dim
flashlight would reflect across
the still rippling waters.

Mandy Barker, Grade 4

Salty Sea Air

I smell the salty sea air and
hear the crashing of the waves
against the rocks as I walk
through the warm golden sand.

I take a break from the long
walk along the shore and look
out; as far as the eye can see
is the clear, blue, sparkling
water.

I hear the waves crash against
each other; the sound of the
waves fills my ears like children
playing in the summer.

As night comes, I can hear the
roar of the sun meeting the
ocean for another time.

My eyes also meet with the
bright, yellow sun as it spreads
its light for the very last time
today.

Sarah Keeney, Grade 4

GATE Advocacy: From Your Community to the State Capitol!

by JoAnne Viserta-Galinis

Are you an advocate for gifted and talented education? If you have ever written a letter or spoken in support of GATE education, you are an advocate for gifted children.

An advocate is someone who supports a cause for someone else, when that individual cannot voice support for him/herself. As parents, educators, and involved community volunteers, it is our task to serve as advocates for school-aged children. Whether we lend our support to a group effort or act alone, we can be an effective force in this area.

Action is more effective than reaction in the cause of gifted and talented education. Trying to resurrect a program after it has been dismantled can be non-productive. Therefore, you must stay informed at all times as to the status of GATE programs within your state, district, and individual schools.

To be a successful advocate, you must:

1) identify the key players who will make decisions affecting GATE programs, and
2) know the rules and policies that govern GATE programs at all levels.

At the local district level, find out who is responsible for the administration of the GATE program – a facilitator, a program coordinator, a curriculum specialist, a principal, an assistant superintendent, or even a district secretary. Get to know the members of your Board of Trustees (or School Board); they will be voting on local policies. As the elected policy makers for your school district, they need to be informed about the GATE program in your district/school.

At the state level, get to know your legislators. They will be the people who will vote on bills which will directly affect GATE program funding. Legislators are generally interested in what their constituents have to say. They do not always have all the facts and information on a topic. This is your opportunity to help your legislator to become more informed on the subject of gifted and talented.

To find out who your local legislators are, call the Registrar of Voters to determine your senate and assembly district numbers. Then check the government pages in the front part of your phone book for the names of your legislators. Legislators have two offices, one in Sacramento, and one in their home district. They are generally in session in Sacramento the first four days of the week and spend Fridays at their home office. Get to know the local staff personnel, especially your legislator's educational aide. Letters and telephone calls to your legislator are important, but visits to the local office can be more effective. Here are some basic steps to follow to help you become a dynamic advocate when writing, visiting, or telephoning your legislator.

Letter Writing

Letter writing is very effective. Having letters from constituents to show at legislative meetings is impressive. When writing a letter to your senator or assembly member,

1. Identify yourself, position, community, basis of your interest in gifted/talented or expertise in this area.
2. In the first paragraph, state your argument. Identify legislation by bill number if you know it.
3. Show your appreciation for previous support if appropriate.
4. Be specific and clear; support main argument with facts in a brief manner. Explain why the issue is important to you.
5. Assume your letter will be read, considered, filed, and acted upon. (Letters are counted; phone calls may be counted.)
6. Be courteous; never threaten or you will lose credibility.
7. Facts must be accurate; cite your sources.
8. Use appropriate stationery, but write the letter in your own words.
9. Be neat. Grammar and punctuation are not as important as the ideas, but do spell names correctly.
10. Ask for a response; include a question which the legislator will have to answer.
11. Close with a note of appreciation; use full name and address.

12. Share specific knowledge you may have about the issue; include a copy of a reliable article supporting your point of view whenever possible.
13. Send a letter of appreciation after he/she has supported your issue.
14. Send copies of your letter to the Chair and key staff member of the appropriate Education Committee when you write your legislator about GATE programs.

Name
Address
Date

The Honorable_____
California State Assembly (or Senate)
The State Capitol
Sacramento, CA 95814

Dear Senator (or Assembly Member) _____,

As a resident of (home town), a registered (state party if you wish or use "voter") and a parent of a GATE student, I am writing this in the hope that you will vote to continue funding for Gifted and Talented Education.

My child has benefited tremendously by being in a class of academically gifted peers who create a challenge to achieve, with a stimulating curriculum that helps children reach their full potential, and a trained teacher who can understand how these children think and learn, thus bringing out the best in them.

I strongly urge that you continue funding for this valuable program. I also urge that the GATE program be expanded as soon as possible to make it available to all gifted children of California, as recommended by both Sunset Reports on GATE programs.

Sincerely,
Signed

Sample Letter

Telephoning

Talking with the legislator's aide is often very valuable. When telephoning the local office, give your name, address, and phone number. Clearly state what you are requesting of your legislator. If you wish him/her to support legislation, state the specific bill number. Telephone calls are usually logged as "for" or "against" specific legislation. While phone calls are important, they are the least effective way to influence your legislator.

FAXing

The newest way to inform and lobby your legislator is by FAX. If you want to have a piece of paper in the legislator's hand as quickly as possible, send a FAX. The FAX numbers for both the home office and the capitol office are listed in the annual California Journal Roster and should also be available if you phone the legislator's office and request the FAX number.

Visiting

Visiting your legislator is not as intimidating as you may think. Legislators do want to know who their constituents are and the views they represent. To make an appointment to visit your legislator, call the local office. Inform the receptionist of the subject of your visit and the number of people attending (limit 4). Spend no more than 15 or 20 minutes. It is effective to assign one person as the recorder to take notes on what has been said at the meeting. Sometimes what you assume you have said may not be what was heard by others in attendance. Let your legislator talk about the issue first. This will allow you to get his view of the subject, permitting you time to readjust your delivery if necessary. End the visit in a courteous manner, requesting the legislator's support for GATE programs, bills, etc.

Legislators can be informed about GATE programs from many sources. A positive, active advocate can help GATE students by keeping our legislators knowledgeable in this area. Commit to becoming an advocate for GATE students today!

If you wish more information concerning GATE advocacy, you may contact JoAnne Viserta-Galinis, former CAG Orange Region Parent Rep and CAG/PAC member, at 714/963-7093.

nificant declines in general self-confidence are associated with declines in confidence about the ability to do well in mathematics, which precedes a decline in performance in mathematics.

There is also evidence of growing negative body image and depression that do not reverse with maturity.

...the growing inconsistencies and contradictions of female adolescence provide greater stress and fewer coping resources for girls...It appears that current cohorts of girls experience stress because of conflicting demands to achieve in the public sphere and be successful in interpersonal relations, especially dating (Bush and Simmons, p. 208).

Not only do we find that gifted females face the same problems, those problems may actually be exacerbated by the greater conflict which comes from greater expectation for success academically.

The pre-school experience addresses needs of boys more adequately than it addresses the needs of girls

We are all aware that one of the criticisms of the school experience for gifted children is the lack of attention to their academic needs. It may well be that the gifted young girl is faced with even more exaggerated neglect. The AAUW report points out that many early education environments concentrate on areas in which girls are more proficient and ignore those in which girls need experience. For example, girls tend to achieve greater competency in the areas of impulse control, small muscle development and language before coming to school, yet pre-schools and kindergartens tend to focus on these skills and ignore those girls need most – large motor activities, investigatory and experimental activities – or leave such activities for play activities. If left for play, then they are left to choice. Since we most often tend to choose those things we are good at, girls may miss valuable experiences during formative years.

Girls receive significantly less attention from classroom teachers than do boys

Conclusions about teacher classroom behavior in the report are of particular concern in discussions of gifted females. First, in preschool classrooms boys are the recipients of "more instructional time, more hugs, and more teacher attention. This pattern persists through elementary school and high school" (AAUW, 1992a, p. 68). Not only do they receive more attention, there are critical practices which discourage female participation and consequent learning. For example, boys call out answers eight times more frequently than girls. Not only do they call out more often, they are acknowledged when they do, whereas girls who call out an answer are instructed to raise their hands before speaking. Further, when boys do not participate in a discussion, teachers will actively seek their input, while girls who do not participate voluntarily are largely ignored.

Teacher comments also differentially favored boys in two ways. First, when the teacher takes the time to comment specifically on performance with detailed and precise feedback, the comment is most often to a boy. In addition, boys received the more useful teacher comments of praise, criticism, and remediation. Such behaviors on the part of teachers may result in a sense of "learned helplessness" on the part of females. This phenomenon refers to a lack of perseverance and a loss of self-confidence as one loses a sense of what to do to succeed. The authors of the report suggest this may be the reason that some girls abandon their interest in the most challenging academic pursuits in later years when the challenge is more difficult and specific feedback is essential, while boys persist.

Finally, in two recent studies which specifically addressed the issues of mathematics and science classes, it was found that science classes are particularly biased against girls and that in mathematics classes a few male students tend to receive the most attention.

Textbooks too often do not reflect the experiences of girls

A 1989 study cited in the AAUW report points out that there was only one book-length work written by a woman among the ten most frequently taught works in high school English courses, with little change in the overall balance from 80 years ago. Textbooks have changed somewhat, but not strikingly. While some social studies texts, for example, have included vignettes of famous women and some examples of women in protest movements, they still fail to present a balanced treatment of men and women.

Researchers at a 1990 conference reported that even texts designed to fit within the

The AAUW has produced three publications (a full report, a summary, and a call to action) and one video relating to the report discussed above. If you are interested in these items, you may obtain copies by contacting the AAUW Sales Office, P.O. Box 251, Annapolis Junction, MD 20701-0251. Phone orders may be placed at 800/225-9998 ext. 91.

Carolyn Callahan can be reached at the National Center on the Gifted and Talented at the University of Virginia, Charlottesville, VA.

California guidelines on gender and race equity for textbook adoption showed subtle language bias, neglect of scholarship on women, omission of women as developers of history and initiators of events, absence of women from accounts of technological development (AAUW, 1992a, pp. 62-63).

It is difficult for young women to imagine their role and success without adequate role models and acceptance of the place of women in the disciplines they study.

While differences in the general population between girls and boys in mathematics achievement is declining, girls are still less likely than boys to take the most advanced courses in high school, and among the most able students, the gender differences are the largest.

There are numerous studies that suggest that differences between males and females are much greater at the top end of the achievement scale – among our most talented students – than in the middle. One of these studies concluded that "all differences in math performance between girls and boys at ages eleven and fifteen could be accounted for by differences among those scoring in the top ten to twenty percent" (AAUW, 1992a, p. 25).

These findings suggest that our gifted females may, in fact, be the most influenced by the societal and classroom factors discussed above.

Gender gap in science may be increasing

Gender differences in scores on the science tests of National Assessment of Educational Progress actually increased between 1978 and 1986. Boys' scores increased while girls' scores decreased. Studies of course selection among the most able of our students is distressing. For example, 40% of students enrolled in first-year high school physics are female and only 30% of students in second-year physics are female. Even when females have pursued math and science successfully in high school, further pursuit of careers or even college majors in those areas is unlikely. In a recent survey of seniors, only 18.6% of the females who had taken physics or calculus were planning to major in science or engineering in college as compared to 64% of males.

Something Can Be Done

One of the more positive conclusions of the report is that there are programs and policies that work in bringing about changes in many of the practices which inhibit the development of the full potential of young women.

Insist on school policies that are based on and reflect gender equity

Although we are all aware that policy is not enough, the studies reported in the AAUW report found that policies can make a difference in practice "if they are strongly worded and vigorously enforced" (AAUW, 1992c, p. 1).

Be on the alert

One of the findings of the study is that a subtle (and sometimes not so subtle) bias seems to pervade the system, from actions to the printed word. For example, the publications distributed to students who are about to take the SAT indicate that girls do not do as well as boys – a potential blow to confidence and self-esteem. Comb literature which you are giving to your children/students. Protest sexism and demand that such statements be stricken from any literature that is distributed and from the speech and actions of all those who work with young women.

Scott and Schau (1985), in their review of studies on changing sex-role stereotypes concluded that "pupils who are exposed to sex-equitable materials are more likely than others to:

1) have gender-balanced knowledge of people in society,
2) develop more flexible attitudes and more accurate sex-role knowledge, and
3) imitate role behaviors contained in the materials" (p. 228).

Examine textbook and other instruction materials for sex bias, including:

- exclusion of girls,
- stereotyping of members of both sexes,
- subordination or degradation of girls,
- isolation of materials on women,
- superficiality of attention to contemporary social problems, and
- cultural inaccuracy through which most of the people active in a culture are excluded from view" (AAUW, 1992, p. 63.)

Become proactive in looking for curriculum and programming practices which may increase the success of gifted girls. *The Action*

Guide which accompanies the full report includes a "Gender Equity Assessment Guide" which contains specific criteria and a rating scale for assessing the degree to which policies and practices of a school encourage or discourage girls. Specific items which are of particular relevance to gifted females include:

- The school board has adopted formal policies that all courses and activities are open to all students regardless of sex, race or disability. Students are not tracked into traditional courses of study by gender or race.
- The rates of participation in gifted and talented programs, advanced placement, and honors courses reflect the race, gender and ethnic population of the student body.
- Girls and boys participate in advanced mathematics courses such as calculus at rates that reflect their proportions in the school population.
- Consideration is given to hiring women and men to teach math and science at all levels.
- In-service training is available to elementary and secondary teachers to strengthen their sex-equitable math/science teaching techniques.
- Guidance counselors encourage girls to continue studying math and science.
- The school system provides teachers, counselors, and administrators with training in gender fairness.
- Teachers in each school use available on-site curricular and background materials to help them teach a diverse student body.
- The school system has policies in place and is making on-going efforts to hire women as superintendents, principals, and in other key administrative positions. Women and minorities receive state and local scholarships in proportion to the school population.
- Counseling on post-secondary education and career options is gender neutral.
- Girls receive non-gender stereotyped counseling on course enrollment throughout elementary and secondary school.
- Teachers/counselors/administrators demonstrate equally high expectations of all students regardless of gender.
- The school creates and publicizes **(to faculty and students)** policies and procedures for reporting and responding to complaints of sexual harassment and sex discrimination.

A much more difficult step for most of us is to examine our own behaviors. Do we unwittingly engage in differential behaviors in our classrooms, towards our own children? It is not the case that any of us sets out to behave in biased or discriminatory ways, but what messages do we give? If you are a female teacher or a Mom, you need to ask yourself whether you degrade your own abilities ("Oh, I was never good at math either.") All of us need to record our reactions to males and females to see whether we are equal in our responses to all children. We need to be alert to differential classroom praise, acceptance of behaviors, and even feedback of a negative nature.

Take proactive steps to intervene with new programs and new directions in curriculum and instruction

Evaluations of programs especially designed to encourage young girls' interest in and confidence about mathematics and science show that they can be effective in broadening career interests, reducing feelings of isolation, and increasing willingness to explore science topics. Investigate these model programs and how they might work in your schools. In California, Berkeley is well known for its success in implementing such programs and working with school staff to modify instructional strategies so that the interest and success of girls in mathematics and science is increased. Programs developed by the AAUW, Girl Scouts, and Girls, Incorporated provide additional models.

Encourage the modification of curriculum in the early childhood program to formalize the inclusion of large-motor activities and investigative and experimental activities.

As teachers, adopt teaching strategies which encourage girls. Among those which have been used successfully are:

- having students read and try out math and science problems before they are covered in class,
- providing a structure in which all students answer questions, pose questions, and receive answers rather than one that emphasizes target students or those who call out answers loudest.

Girls also respond well to special programs in which they work cooperatively in a relaxed atmosphere where math is fun (AAUW, 1992b, p. 32.)

Conclusion

Fully half of the gifted students in our schools are females. There is no reason to believe that they are immune to the effects of the behaviors and practices which discourage all females. We need to look closely at our policies, our practices, and our own beliefs and values to make those changes which will ensure that we are not subtly perpetuating stereotypes, discouraging the development of self-confidence and self-esteem, and inhibiting the development of the full potential of these young women.

[1] *The AAUW report contains numerous references to books, articles and documents relating to the findings we are reporting here. They have not been referenced here because of the summary nature of this article.*
If you are seeking specific references to any items in this article, consult the full report reference in the bibliography.

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My Sister's Footsteps

My footsteps are so like hers.
Overlapping yet not quite together.
They are so similar, yet fighting
to be apart.
Fighting to be individual.
They lead the same way and continue
the same trail.
Though sometimes they stray from
each other
and their qualities shine through.
And other times they stand
side by side.
Standing up for each other.
Hers always a stride before mine.
The stride representing the eight
years
between us.
Hers cross over mine
but mine more so over hers.
It's so easy for me to follow her,
to say I know her.
But not always.
I have learned when to keep my
mouth shut.
Of course she's wonderful, loving,
caring and sweet,
and I will always be proud of her.
But I know how to be myself.
I love her,
and I hope our trails stay
side by side.
With her always a stride before mine.

Joy Pederson
Los Osos Middle School

Students Write from From Camp Nawaka Leadership Camp

It was life on another planet for students from Santa Ana who attended Camp Nawaka leadership camp. Well, actually they made up their own planets, with myths, distinctive cultures, national anthems, and much, much more. The students were enthusiastic about the fun they had and about what they learned.

"They showed us how to lead a group and also how to follow one," wrote Art Rios. Manuel Magellan felt that the camp "showed us that we can all be leaders." Thuan Lai "enjoyed when we got to create our own planet. It was surprising to me when during the group presentation no one booed us or gave negative remarks. Now that greatly inspired me! It feels great when your peers don't make negative remarks." Thuan also wrote, "Many people say you can learn a lot in one day. I never believed that, but during the weekend I learned so much, and I met so many nice and intelligent people."

The students who wrote were from Lathrop Intermediate School and were accompanied to camp by Santa Ana USD teacher Barbara Frazee.

The first leadership camp for the 1992-1993 academic year will be at Point Bonita in Marin County November 13-15. The registration form is on the next page.

LEADERSHIP CAMP NORTH

for 7th and 8th grade students
November 13-15, 1992
Point Bonita YMCA Camp
At the Headlands in Golden Gate National Wildlife Preserve

The beautiful Golden Gate National Wildlife Preserve, situated just north of the Golden Gate Bridge, will again be the site of CAG's Leadership Camp North for seventh and eighth grade students.

A weekend of activities will be led by Dave Nettel, well-known camp coordinator and naturalist. The program is designed to include activities which enhance leadership skills, build trust, examine group dynamics, promote self-esteem, and improve communication skills while exploring this outstanding natural setting.

The weekend begins with dinner on Friday evening and concludes after lunch on Sunday. Campers should arrive at camp between 4:00 and 6:30 pm on Friday and should be picked up between 1:00 and 2:00 pm on Sunday. The staff will include professional educators and high school and college-age cabin leaders for the living groups of 10-15 campers. The camp has comfortable, well-equipped, heated dormitories. Campers will need to bring sleeping bags or other bedding.

Medical forms, maps, and lists of recommended clothing and gear will be mailed to registrants.

Camp capacity and enrollment limit is 75. Applications will be taken on a first-come, first-served basis.

The cost for this program is $90.

A limited number of partial camperships is available. If applying for a campership, please complete this registration form and send it without payment, attaching a letter outlining family need. You will be notified of the amount of campership available to you, and the payment required from your family.

Please complete this registration form and mail by October 20 to:
the CAG office, 23684 Schoenborn St., Canoga Park, CA 91304.
Questions may be directed to Barbara Nelson, Leadership Camp Chair, 619/379-4289
or to the CAG office, 818/888-8846.

Name (for name tag and roster) _____

Address _____

City/State _____ Zip code _____

Phone ( ) _____ Age _____ Sex _____ Grade: 7 8

School _____ Principal _____

School District _____

* Please attach a letter if there are special dietary or medical needs for this student.

Conditions and provisions:

- The camp is for students who are gifted, rapid learners, high achievers, or capable underachievers.
- No discipline problems will be tolerated. Failure to follow rules of the camp will result in the student being sent home, with the parent required to provide transportation.

We agree to the above conditions:

_____
Signature of camper

_____
Signature of parent or guardian

Payment enclosed:

Check # _____ , or

Charge card information:

Visa ____ Mastercard ____ Exp. Date _____

Card Number _____

Signature of

cardholder _____

MEMBERSHIP·APPLICATION

Please share this copy of the *Communicator* with a friend when you have finished reading it. He or she might like to use this form to become a CAG member and active supporter of gifted education. Because of CAG's role in lobbying for appropriate education for gifted and talented students, dues payments to CAG are not tax deductible as charitable contributions for Federal income tax purposes.

Name: _____
Last *First* *Middle Initial*

Region:

Code:

Preferred address: _____
Street address or PO Box

_____ County (*not country*) _____
City *State* *Zip code*

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❑ Counselor/psychologist ❑ Parent ❑ Teacher ❑ Other _____

Special Skills/Interests: ❑ Arts ❑ Humanities ❑ Math ❑ Science ❑ Computers ❑ Advocacy/ legislation

Payment enclosed: ❑ Personal check #_____

❑ District check #_____ Charge: ❑ Mastercard ❑ Visa Exp. date_____

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VOLUME XXII · NUMBER 5 · NOVEMBER 1992

COMMUNICATOR

THE YOUNG GIFTED CHILD

Development of Giftedness

by Barbara Clark

Changes in the Concepts of Intelligence and Giftedness

Giftedness is a biologically rooted concept that serves as a label for a high level of intelligence and indicates an advanced and accelerated development of functions within the brain, including physical sensing, emotions, cognition, and intuition. Such advanced and accelerated function may be expressed through abilities such as those involved in cognition, creativity, academic aptitude, leadership, or the visual and performing arts. Gifted individuals are those who perform, or who show promise of performing, at high levels in such areas and who, because of such advanced and accelerated development require services or activities not ordinarily provided by the schools in order to develop their capability more fully. (Clark, 1992).

This concept of giftedness is a change from earlier formulations, due to the need to consider the data now available from the neurosciences that change the concept of intelligence. We used to believe that intelligence was complete at birth, that it did not change throughout our lifetime, and indeed diminished after middle age. It was believed that after 45 years of age the brain slowly died. From current work in the neurosciences we now have a very different view of the development of intelligence. We now know that just as the brain changes in a dynamic and interactive way, intelligence too responds to the enhancement or inhibition of stimulation and remains dynamic in its development throughout our lifetime. High intelligence, whether it is expressed in cognitive abilities such as the capacity to generalize, to conceptualize, or to reason abstractly, or whether it is demonstrated by specific academic ability, leadership, or creative behavior in the visual or performing arts, results from the interaction between inherited and acquired characteristics. This interaction encompasses all of the physical, mental, and emotional characteristics of a person and all of the people, events, and objects entering that person's awareness. As no two people have identical physical, mental, and emotional properties, neither do they have the same environment. Our reality is unique to each of us.

We could not from this interactive point of view say which is more important, the inherited abilities or the environmental opportunities to develop them. Restriction on either would inhibit high levels of actualized intellectual ability. As Dobzansky states, "The genotype and the environment are equally important, because they are indispensable. There is no organism without genes, and any genotype can act only in some environment." (Dobzansky, 1964). Genes cannot be thought of as causing particular attributes; rather, they have a wide range of effects in different environments.

Even our beliefs about the absolute stability of genes must be re-examined. Slavkin states, "We now know that we can rearrange all the genetic material in the course of expression. The genes are not stable. The transcription of genes from DNA to RNA can actually be rearranged." (Slavkin, 1987). Genes provide us with a structure or pattern, but they are dependent upon the environment for the particular characteristic that they will express. A signal from the environment impacts on a somatic cell and activates a regulatory gene that codes for

Continued on page 34

PRESIDENT'S COLUMN

Sandra Kaplan

While joining a group of teachers after a staff development experience, I overheard these comments:

"THEY expect me to do THAT and everything else we're expected to do?"
"THIS too shall pass—just wait, we'll live longer than that idea."
"THIS isn't NEW!"
"IT didn't work twenty years ago, IT won't work now!"

My first reaction to these statements was to assume they represented the teachers' negativism toward change. My second, more thoughtful, response to these statements was to recognize that they were provocative challenges to the constant demands for change these teachers have experienced. These statements could be expressions of concern and inquiry rather than statements of disregard and negativism about educational change. I realized I needed to "read" these statements to determine what is unstated or between the lines, and not just what is stated or openly expressed.

Teachers who say, "They expect me to do that?" may actually be questioning how and when they will master the competencies needed to make the required change.

Teachers who say, "This too shall pass" may actually be recognizing the oft-time mercurial approach of educators who support a popular educational idea as fervently as they retreat from the same idea when it is no longer popular. This attitude also emerges as a consequence of the greater value placed by change agents on WHAT should be changed rather than WHY change is needed. This statement also illustrates the skeptical nature of teachers who are still trying to implement an idea just as that very idea is abandoned for another before it has even been scrutinized for its effects.

Teachers who say, "This isn't new" might be uncovering an important variable in describing what constitutes resistance to change. This variable is the lack of established connections between old and new ideas. More importantly, this variable illustrates how new ideas are seldom given historical roots. Without such connections, teachers are not given credit, so to speak, for the learning experiences they currently are providing their students and how they relate to the new learning experiences they are expected to undertake.

Teachers who say, "It didn't work then and it won't work now" are criticizing the lack of data often used to determine why an educational idea failed. Recognition that different times yield different results is insufficient to explain why an idea that failed years ago can be implemented successfully today. An analysis of evidence is needed to eradicate memories and stimulate enthusiasm for an idea.

We all admit that educational change is dependent on teacher support. The teachers' statements about change need to be heard not as a stumbling block to restructuring, but as the foundation for developing a readiness to restructure.

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Administrative Assistant, Sharon Mountford, 818/888-8846...FAX 818/888-6225

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Submission of material

CAG encourages all interested parties to submit articles for publication. All submissions will be given careful consideration. Photos and camera-ready art work are particularly desirable Send all material with your name, address, and phone number to Jean Drum, *Communicator* Editor, 7822 Belgrave Avenue, Garden Grove, CA 92641, 714/892-1745.

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CALENDAR

November 4-8, 1992
NAGC National Convention
Celebrating Diversity
Bonaventure Hotel, Los Angeles, CA
202/785-4268

November 13-14, 1992
California Association for Supervision and Curriculum Development (CASCD) Annual Conference
Bringing out the Best in all Students
Irvine Marriott Hotel
Contact Debby Bowes at 714/843-3285.

November 14, 1992
ASDEG Conferene, ***Get up and Know***
San Diego Convention Center
619/445-2625

November 19, 1992
Demonstration Site Visit
Luther Burbank Middle School, Burbank, CA
818/558-4653

November 20-21, 1992
Roeper City and Country School Conference
Equity and Excellence: The Possible Dream
Bloomfield Hills, MI

February 3-6, 1993
California Association for Bilingual Education (CABE) 18th Annual Conference
The Best of Both Worlds
Anaheim Hilton and Towers
714/369-6455

March 5-7, 1993
31st Annual CAG Conference,
Theory into Practice: Orchestrating Excellence
San Jose, CA
For information call 818/888-8846.

Looking ahead...

① March 3-4, 1994
32nd Annual CAG Conference
Palm Springs Conv. Center & Wyndham Hotel

② March 3-5, 1995
33rd Annual CAG Conference
Oakland Conv. Center & Parc Oakland Hotel

③ March 1-3, 1996
34th Annual CAG Conference
Los Angeles Airport Hilton and Towers

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In Future Issues

Themes for upcoming issues of the *Communicator* include Math/Science in January, Middle School in April, and Leadership in June. Manuscripts are invited. Please submit them to Jean Drum, *Communicator* Editor, 7822 Belgrave Avenue, Garden Grove, CA 92641.

If you have topics which you would like to have covered, suggestions are welcome. Members who would like to become more involved in the planning and preparation of the *Communicator* are invited to call, 714/892-1745.

Jean Drum

Back to the Future with Wolfgang Amadeus Mozart

Let's suppose we've built a time machine that really works (we're *very* gifted) and being music lovers as well, we decide we want to bring Mozart, that all-time gifted young child, into the 20th century. We're all familiar with Mozart's childhood, the incredible precocity, the years of travel from one European city to another to earn money and fame for the family, irregular hours, indifferent food and lodging, no friends to play with—in short, about as unsatisfactory a way to raise a child as can be imagined. Despite this, however, Mozart seems to have come out of it relatively well. His gifts were certainly developed to the highest degree, he didn't turn against music, his social skills were evidently reasonably good, and I don't think anyone blames either his early death or his inability to handle his finances on his childhood experiences. Nevertheless, we feel that now we have a much better grasp on how to raise gifted young children, and we want to give Mozart a better chance in life. So, we bring him here, and our experts begin to devise an educational program for this five-year-old prodigy which will maximize his musical gifts, give him plenty of interaction with his peers, keep him from feeling too much pressure, make sure he has a happy childhood, and ensure that he is well-rounded. Now, just how are we going to do this? Good question!

The point of all this is not that we would wish for any gifted child an upbringing like Mozart's. But it does bring into focus the problems inherent in dealing with young gifted children. Gifted children are different, and no educational or child-rearing system is ever going to change this fact. A fluent three-year-old reader or a kindergartener who plays chess with skill will never be anything but different, and it needs to be all right for this child to be different.

In this age of diversity, this kind of differentness should be completely acceptable. It is our task to craft an educational and developmental experience that accepts and encourages this difference and thereby signals to the child that his essential self is right and good. As Wendy Roedell says in her article in this issue, the teacher (and this applies equally to parents and anyone else who interacts with the child) must validate a gifted child's advanced abilities. In other words, these abilities must be felt to be worth something. We must admit that whatever else he may have done, Leopold Mozart did validate his son's gift.

At the same time we also need to craft an educational experience that enables the child to live in the world around her, interact successfully with others, and become productive and happy. This isn't particularly easy when working with very different children. After all, what *would* you do if Mozart were in your preschool? But it's not impossible either, and if, as Elinor Smith and Rosa Perez said in their article in the February issue, incorporating differences should be a piece of cake for us in gifted education, we are going to be able to find those ways to nurture our young gifted children so that their gifts will blossom joyously.

Preschool Gifted: What's the Rush?

by Laura Katz Hathaway

Often I encounter parents who ask about getting a young child tested for giftedness. They are concerned that somehow their child is "different." He may be reading at two years of age, or obsessively investigating a particular topic, taking apart mechanical objects such as toasters and clocks to "see how they work," or demonstrating an ability to see relationships. She may be extremely sensitive to the feelings of others, as well as the environment, may have talked much earlier than her peers (or maybe talked much later), have an extraordinary memory, or an adult-like sense of humor and reasoning ability. Somehow these children seem different from their peers. (Please note that the gender is interchangeable.)

The question that usually follows is: should we have our child tested? Testing can be important for a young child if it is necessary for educational planning or if there is a question of a possible learning disability. Usually for children ages three to five it is more important to observe their behavior and respond to their particular interests and needs than to know their "score."

What is most important is matching your child with an appropriate program or types of experiences. Sometimes in our zeal to find the right program we can overwhelm a child; sometimes it is difficult to know how to sort out the "right" program.

What should a preschool program look like? For a gifted child the program needs structure and flexibility. The structure provides the child with limits and the security of knowing what is expected. Flexibility allows the child to explore his/her interests and develop skills as she/he is ready.

The responsiveness of the environment to the child's needs is very important. Some bright children may be advanced in reading or math ability, yet school may be the place they need to play and experience other important skills, such as social interaction and problem-solving. Experiential learning, rather than a formal academic setting is also very important. Allowing the child to proceed at his/her own pace, rather than conform to a pre-ordained curriculum is more stimulating for a bright child.

Some preschool programs are too developmental in their philosophy for a gifted child; others are too structured. What is preferred is a "developmentally appropriate" environment, allowing the child to explore the world around him through open-ended types of activities, yet providing challenging learning experiences that stimulate cognitive, as well as social/emotional development.

Finding the right school can often be a difficult experience, yet it is critical to a young child's development. In addition to the program, it is also important that the teacher have experience and an interest in working with bright and gifted children, that the environment be clean, well-organized, bright, inviting, and nurturing, with many interesting activities available. Ask yourself, would you want to spend time there?

If an appropriate school is not available, there are many ways you can support your child at home. Home does not need to duplicate school to be rewarding to a bright child. In fact, it should *not* duplicate school. There are many activities around the house that can be stimulating to inquiring young minds. Ordinary experiences such as cooking, going to the park, or driving around town on errands can be turned into decision-making opportunities. Toys that allow for many uses and are open-ended, such as blocks or strategy games, are much more important to a growing mind than the latest commercial success.

Most important of all: READ, READ. READ. Modeling an enjoyment of reading is critical for young children. There is nothing more special you can do for your child than curl up with your child in your lap and a good storybook in your hands. Even older children (as much as they might act as if they are too mature for this experience) appreciate a reading time with Mom or Dad. *The Read-Aloud Handbook* by Jim Trelease can be found at your library or local bookstore, and it has a wealth of suggestions for good reading. He is an excellent speaker, and you may want to watch for a time when he speaks in your area.

Finally, if you think that testing would be helpful, check with other parents of gifted children or your school district to find a psychologist who is experienced in working with gifted youngsters, especially young children. The rapport developed between the psychologist and the child is very important to the process when testing a very young child.

Mensa has a booklet available to the public called *Nurturing the Gifted Child: A Resource Guide for Parents*, which contains a description of the characteristics of the gifted child, as well as an excellent bibliography and list of related organizations. If you would like a copy, address your request to American Mensa, 2626 E. 14th St., Brooklyn, NY 11235.

One of the best ways to support your child is to educate yourself as to the needs of gifted children and to get involved in any local organizations that support their education and development.

And most of all, enjoy your child in all phases of his/her development and remember that the preschooler who is talking to you like a twenty-year old is also a four-year old who needs to enjoy childhood and relies on you to parent.

Laura Hathaway is the Founder/Director of The Pegasus School. Her address is 19692 Lexington Lane, Huntington Beach, CA 92646.

These are Pioneering Times in Early Childhood Gifted Education

by Joan Franklin Smutny

At a time in history when we find computers in kindergarten classrooms, it's hard to imagine that we are still in the pioneering stage of identifying and serving gifted children in their early learning years. Yet it is true.

In an era of skyscrapers, we are working from log houses. Satellites flash information around the world in seconds, yet as advocates for gifted children we often find ourselves stuffing messages in bottles and tossing them out to sea, hoping for the best.

Computers, calculators, and other sophisticated learning tools are nearly commonplace in preschool classrooms where, ironically, gifted young children's special talents and needs typically are overlooked or ignored.

This is foolish at a time when we know—the research is voluminous and undisputed—that for children more growth goes on from Day One to age four and a half than at any other time. These children are marvelous—they come to diversified learning situations with a motivation that is enormous. They want to learn, to create, to accomplish, and to go forward. Yet they are so often dismissed as merely "cute" because they express themselves articulately, or they read, or they display other intellectual or creative talents unusual for someone so young.

People commonly think of a child's early years as happy preparation time for the day when they start school and the "real" learning can begin. For the gifted child, the scenario plays out quite differently. In the freedom of early childhood within a supportive family, few intellectual limitations are placed on this bright motivated learner. Parents and friends provide a tireless cheering section for developmental progress and intellectual curiosity.

With that child's first step into a formalized learning environment—be it nursery, kindergarten, or even a day care center—the more structured curriculum begins to impose limitations. Some part of that structure may provide a valuable framework for learning social skills, but it also can, and typically does, curve intellectual and creative expression along the most average, manageable line. Only years later—sometimes in third or fourth grade, or sometimes not until high school—does much of the education system acknowledge these children's needs with special enrichment or advanced placement classes. Gifted children are entitled to appropriate educational opportunities much sooner than this, and as articulate as these children are, they aren't capable of speaking up for their creative and intellectual rights. We adults must do that for them.

Parents and Teachers as Advocates

Historically, pioneers were self-chosen; they were made, not born. In this frontier of advocacy for gifted young children, many of the most tireless pioneers have been tapped by an accident of birth; thus, parents of gifted children discover themselves in territory uncharted by the standard maps of current child development and educational programs. Educators sensitive to the special needs of these children also may find it lonely going, since comparatively few systems embrace the concept of early identification of, and appropriate practices for, young gifted children. Tales from the front are a constant reminder.

Ashley, 8, a bright and enthusiastic child at home, is labeled as a poor student by her earliest teachers. At the end of the second grade her teacher tells Ashley's mother that Ashley obviously has a learning disability and should be tested by a psychologist. The expert's conclusion: Ashley's "disability" is her IQ of 140 and the bad luck to be in a school and in two successive classrooms where her special needs are ignored.

Rachel, 4, an early and avid reader and writer enters a traditional junior kindergarten and soon begins to avoid both books and paper. Her teacher says it's developmental. Rachel confides to her mother that she doesn't want to read or write any more because "it's not allowed in school." In a different program with a teacher attuned to her special abilities and needs, Rachel becomes an enthusiastic contributor to class activities, by reading, writing, and sharing ideas.

Travis, 3, is an intellectually energetic and articulate child who is, nonetheless, painfully shy and traumatized by the idea of attending a

nursery class without his mother. The mother calls numerous nurseries to review the programs and to ask the teachers how they will handle Travis's situation. Let him cry, they all say; he'll be all right once he accepts the new routine. One teacher alone, in a program for gifted young children, makes individualized suggestions which respond to the boy's complex intellectual and emotional experience of this new step. Her suggestions prove successful.

All of these examples illustrate the reasons for concern and optimism among those of us who care about gifted young children. The reasons for concern are obvious to us. In these early years a child develops cornerstone attitudes about learning, and about the world and his or her place in it. Despite their great potential, children whose intellectual or creative abilities are overlooked or ignored—at home, day care, or school—are more likely to feel bored, frustrated, and intellectually isolated. In that context, how easy it is for these keenly sensitive children to develop negative attitudes toward school and themselves.

The reasons for optimism? In each example, and in a growing number of others, parents are becoming perceptive activists in an effort to find or help craft the right educational fit for their gifted children. Experience also indicates that the more teachers learn about gifted education theory and practice, the more likely they are to be responsive to those children who surface in their classrooms. And finally, it is clear that when teachers follow through on these efforts to provide appropriate opportunities for gifted children, the results are usually exciting and satisfying for all concerned.

When all these variables—parents, teachers, attitudes, and action—come together on behalf of the child, the results are indeed impressive.

As an example, Creative Children's Academy, an elementary and middle-school for academically gifted and creatively talented children in the Chicago area, provides a wonderful model of what an appropriate school environment can provide for young gifted children and their families. The school was founded 11 years ago with an enrollment of 11 and a staff of 6. Today 150 children, ages 3 through grade 8, attend school there each day. Even for the youngest children, the curriculum is skillfully developed to provide a well-rounded educational experience, which for gifted children means program content and materials that are challenging, intellectually stimulating, and designed to foster creative problem-solving skills.

Worlds of Wisdom and Wonder, my own programs for gifted children, feature diversified courses for two to six-week sessions during the summer and on weekends during the school year. In the summer just past, more than one thousand children enrolled in this and related programs. Our course for four- and five-year olds was filled, and there is a waiting list for the school-year programs.

Both CCA and the *Worlds of Wisdom and Wonder* programs are successful because they respond to the highest needs of young gifted children and they draw from a strong base of parent and teacher involvement. Unfortunately, programs like these don't exist in every community. Regardless of the formal educational programs available, however, committed teachers and parents can create an optimal environment for the young gifted child.

Parents Have Valuable Perspective

Parents can be the catalyst for enormous success with very young gifted children. Character development—self-esteem, individuality, and respect for others—begins at home. Parents are role models for attitudes toward learning, working, and getting along in the world.

In addition to providing their children with stimulating, enriching learning opportunities at home and through local community activities, parents can provide valuable guidance to day care providers and nursery and kindergarten teachers not familiar with the child. Parents are, after all, in the best position to observe their young child at quiet play, intellectual activities, and social interaction.

A parent's intuition is often as accurate as any formal test measure in identifying a gifted child. Even among parents who resist labeling their children as "gifted," there is typically an awareness that the child is, in often-used terms, "different from the others" in a play group, nursery, or kindergarten, and some researchers suggest that this "real-world intelligence" can be a more accurate reflection of giftedness than more conventional tests and measures.

Howard Gardner of the Harvard University Graduate School of Education and author of *Frames of Mind* suggests that there are seven broad categories of intelligence to be consid-

ered. In addition to the conventional ones—verbal, mathematical, and spatial—he adds musical ability, bodily skills, adroitness in dealing with others, and self-knowledge. While formal testing to identify giftedness in young children can be useful, Gardner and other researchers point out that these tests fall far short of providing a meaningful measure of the multifaceted nature of giftedness.

More effective is an observant parent who maintains a portfolio of a child's "products"—drawings, creative ideas, challenging questions— to share with the child's teacher.

Professionals Can Be Advocates

Professionals in early childhood development are often overlooked as advocates for young gifted children, but they too are often in a position that allows for special insight into this very special group of children.

Day-care providers can make periodic notes regarding a child's activities and interests. Preschool and nursery teachers often share observations with parents at conference time, but they should be encouraged to provide some written evaluation which can be forwarded to the child's teacher the following year.

Preschool and primary school teachers are in the most powerful position to serve as advocates for gifted young children. By identifying these children and responding to them with appropriate practices, they nurture the gifts. By establishing a written record of their assessment, they improve the odds that subsequent teachers or principals will take note and—with growing insight—respond appropriately.

Ideally, parents should meet with their child's teacher before the school year even begins. Why wait to see if a child's abilities or interests surface in the classroom milieu? It's much more productive—for parents, teacher, and child—if the teacher knows ahead of time and can prepare to provide the child with engaging, stimulating activities that may go beyond what is otherwise planned.

Every teacher should begin his or her year with an eye toward identifying gifted children. Teachers need to ask, "Do I have a gifted child in my class?" Review the common check-lists for gifted behaviors. Here are just a few.

1. Advanced language development, which may include proper grammar and sentence structure, interest in retelling events or playing word games, and long attention span for stories or conversations.
2. Creativity evident in humor, fantasies, story-telling, theatrical interests, drawing or art activities and use of art materials.
3. Understanding of and interest in complex concepts like life and death, time, God, right and wrong, and fairness; interest and skill in classifying things; applying knowledge in one area to some other area of life experience.
4. Leadership ability, which may include heightened sensitivity to the feelings of others, adaptability to different ability levels of playmates, and use of verbal skills to deal with conflict or to influence others.
5. Mathematical ability, including a well-developed sense of order, understanding of basic concepts of one-to-one correspondence, facility with mental calculations, interest in time, grouping of objects, and facility with puzzles.
6. Musical ability, including singing on pitch, identifying tunes that are the same and different, and learning notes and words to songs easily, with a minimum of repetition.
7. Intellectual and physical energy, evidenced by preferred friendships with older children and adults, intense powers of concentration, ability to visualize images, and notice of small changes in familiar surroundings or objects.

Unfortunately, many teachers in the preprimary programs have had little or no coursework in gifted education. Their awareness of gifted children may be limited to stereotypes—the early reader or the math whiz—and their response to those and other gifted children is likely to be inadequate.

Informed parents can become resources for these teachers, but the teaching profession itself should address this blind spot in teacher education and begin to remedy it through in-service programs and other continuing education programs.

The issue is no longer a question, "Can a very young child be gifted?" but a statement, "We must make the effort to identify these children and respond to them in a way that nurtures the gift and their potential contribution to the world around them."

With a commitment to productive advocacy and love, this is an exciting time—albeit a demanding one—to be pioneers in this field of early childhood giftedness. An estimated 500,000 gifted children are born each year. What a precious resource and incentive for us all!

Joan Franklin Smutny is the Director for the Center for the Gifted, National-Louis University, Evanston, IL 60201.
She may be contacted at 633 Forest Avenue, Wilmette, IL 60091.

A Learning Center Approach to Providing a Differentiated Curriculum to Primary Students

by Sandra Kaplan

Developmental Appropriateness is the concept that curriculum and adult interaction with children should be responsive to individual differences. Accordingly, learning results when individual differences in developing abilities, interests, and understanding are recognized and challenged. (Connecticut Department of Education)

The concept of developmental appropriateness both substantiates the need and provides the framework for differentiated curricular experiences for gifted young learners. It also reinforces the varied levels of readiness or receptivity to learning which young children demonstrate both within and between domains of academic development, such as academic ability, personal interests, social relationships, and physical behavior. Varied levels of readiness demand expression in a variety of curricular opportunities and challenges. A differentiated curriculum supports the rights of individuals who differ from each other to be educated in ways that respect the characteristics and behavior that make them different from one another and from other learners.

The translation of theory about developmentally appropriate or differentiated curriculum into classroom practice can be effected through the use of context-based learning centers. The construction of learning centers is dependent on presenting students with a collection of learning experiences organized around a topical or conceptual area of study. This collection of learning experiences represents a range of activities from simple to complex, concrete to abstract, and known to unknown. Thus, each learning center contains activities that introduce, reinforce, and extend understanding about the area of study. This range of learning experiences provides varied levels of challenge and differentiates the area of study to accommodate the varied abilities and interests of young gifted learners. (See Figure 1)

Key words are used to stimulate the young learners' curiosity about the subject under study. The key words provide an organizer or "stem" which young students can use to focus their attention while investigating the topic or concept around which the learning center is organized. Key words include:

kinds	steps
characteristics	relationships
purposes	influences
functions	factors
conditions	concerns
	significance

(See Figure 2)

Developing a Learning Center

Topic:

Introduction	Reinforcement	Extension

Figure 1

Developing a Learning Center

Topic: Transportation

Introduction	Reinforcement	Extension
• kinds or modes of transportation • characteristics of various modes of transportation	• relationship between environment, industrialization, and modes of transportation • significant inventions affecting transportation	• influences of transportation on social, economic, and environmental conditions

Figure 2

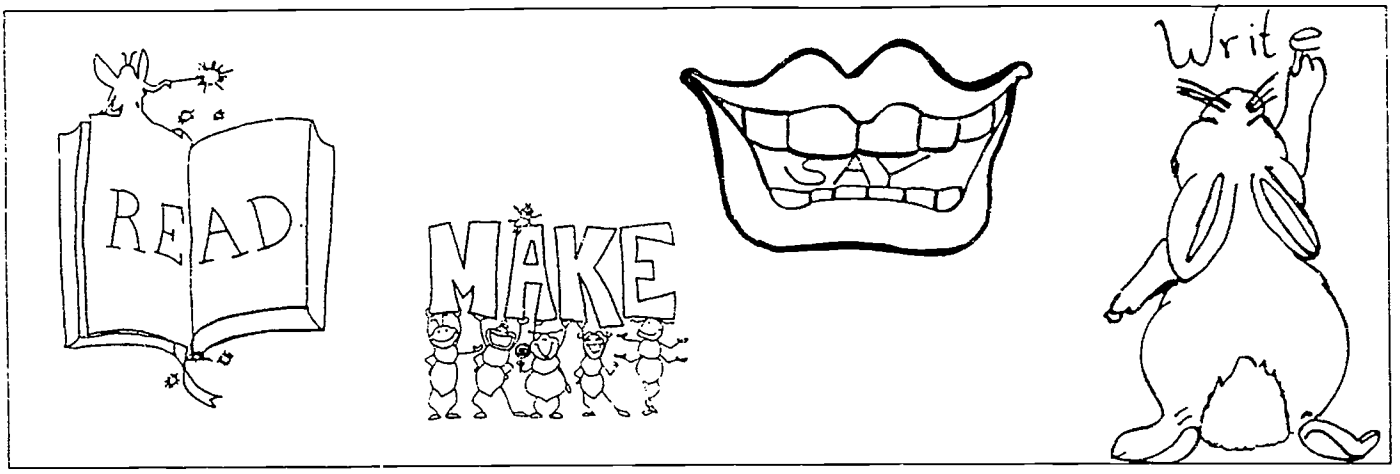
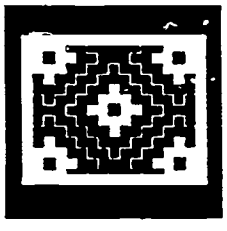


Figure 3

Talk-About Center

This center includes items that are changed frequently to excite students to discuss and debate. Items could include posters, headlines from newspapers, and snippets from a video telecast.



Museum Center

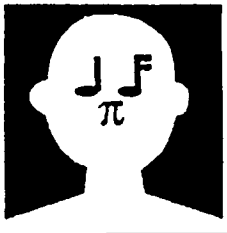
This center includes an item to be exhibited (a doll from another country, an unusual antique farming tool) that inspires both awe and appreciation.

Real World Center

This center includes a collection of business cards, menus, brochures, and other items that serve to excite curiosity and lead to an investigation.

Production Center

This center includes a range of unusual materials that can be used to stimulate creativity: nuts and bolts, PVC pipes and joints, wallpaper sample books.



Multiple Intelligences Center

This center includes activities related to each of the seven types of intelligences. It enables students to assess themselves and practice in each of these intelligence areas.

Figure 4

The learning preferences of young gifted learners can be used as the basis to form the learning experiences. Each reference to a modality of learning becomes the stimulus for an introduction, reinforcement, or extension activity in the pursuit of the topic or concept being studied. (see Figure 3)

While traditional content-based learning centers are important in differentiating learning for primary gifted students, it also is necessary to include more unusual learning centers whose major focus is to stimulate inquiry and promote intellectual opportunities not customarily placed into the primary classroom environment. (see Figure 4)

The use of learning centers to provide for the young gifted student requires more than their simply being placed into the classroom environment. A learning center requires the students' awareness of how and when to use the learning center, and the expectations for work at the center. Most importantly, the learning center does not replace the students' need for teacher-directed differentiated instruction. A learning center cannot satisfy the differentiated needs of a young gifted student without the constant vigilance of the teacher, who must introduce, reinforce, and extend the learning experiences at the center.

Dr. Sandra Kaplan is a Clinical Professor of Education at the University of Southern California as well as the Associate Director of the National/State-Leadership Training Institute–Gifted/Talented. She is the current president of the California Association for the Gifted.

Early Childhood Education for the Gifted: The Need for Intense Study and Observation

by Maurice D. Fisher

"All true sciences are the result of experience which has passed through our senses, thus silencing the tongues of litigants. Experience does not feed investigators on dreams, but always proceeds from accurately determined principles, step by step in true sequences to the end..." Leonardo da Vinci (1452-1519)

What can parents and teachers do to improve the identification of young children who are potentially gifted? A useful answer to this question might help our schools and American society to identify hundreds of thousands of children with high abilities who would usually "slip through the cracks" of screening and identification procedures. If young children with the potential for being/becoming gifted are overlooked during the preschool and primary years, we as educators and parents will miss a crucial opportunity for nurturing and educating our greatest natural resource — the young gifted children of America.

The main reason that we must improve our success rate in the early identification of the gifted is closely related to the concept of "imprinting" derived from the study of animal behavior or ethology. This concept means there are critical periods in the development of all animal species, including humankind, during which they are most sensitive to environmental influences and opportunities for learning (Gregory, 1987). The basic skills, characteristics, and behaviors which underlie giftedness will develop during the critical period from infancy through five years if the child receives the proper stimulation from parents and teachers for eliciting these skills, etc. Therefore, as in the development of all children, it is essential for children who show potential for being gifted to receive the most stimulating educational and social opportunities during this critical period of their development. These opportunities must include abundant and stimulating conversations between the parent/teacher and the child; intriguing games and toys; numerous opportunities to travel to new educational environments such as other cities, houses, buildings, museums, and zoos; and stimulating opportunities for play and social interactions with other children, siblings, relatives, and other adults.

As important as providing a stimulating environment for developing giftedness is the need to observe behaviors and characteristics which underlie giftedness. Parents and teachers should become more aware of these behaviors and characteristics so they can identify gifted children at an early age. However, we must caution the reader to be sensitive to the term, "potential for giftedness." We believe that giftedness is composed of emerging skills, behaviors, and characteristics which may take 20 or more years to develop to the fullest extent possible, and that it is important to look at giftedness as being a potential for great accomplishment rather than a particular characteristic or test score. By perceiving giftedness in this manner, we can open up opportunities for children who may not demonstrate the high test scores or behaviors necessary for being admitted into a gifted program at a particular time. However, with proper encouragement and stimulating educational opportunities, these children may exhibit giftedness later in childhood, in adolescence, or as young adults.

When we discuss giftedness in regard to young children, we are describing something which is exhibiting itself in small and progressive steps. What happens to the future progress of these "gifted" characteristics and behaviors is a function of the child's social, environmental, and educational experiences. If giftedness were viewed in this light as a long-term, progressive, and emerging capability, there would be fewer problems in identifying children for gifted programs and far less rancor among experts concerning what is the "true" definition of giftedness.

Given that the child is placed in a stimulating environment, similar to the one just described, how does a parent or teacher become skilled in identifying the behaviors and characteristics which form the basis for giftedness in young children? First, it is important to study and become more knowledgeable about the great researchers of child development and early childhood education. In this regard, we

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Maurice Fisher is President of Gifted Education Press, Manassas, VA.

highly recommend the works of Jean Piaget, Maria Montessori, and Lev Vygotsky. Second, it is important to improve one's observational skills in order to notice certain characteristics and behaviors indicative of giftedness. Let us briefly examine some of the ideas of these giants of child development and early childhood education who unfortunately seem to have been forgotten by many contemporary educators.

Jean Piaget, the famous Swiss psychologist, has much to offer those who want to understand giftedness in young children (Fisher & Fisher, 1981). He said in 1965 that,

"Our school system, as much under left-wing as under right-wing regimes, has been constructed by conservatives (from the pedagogic point of view) who were thinking much more in terms of fitting our rising generations into the molds of traditional learning than in terms of training inventive and critical minds. From the point of view of society's present needs, it is apparent that those old molds are cracking in order to make way for broader, more flexible systems and more active methods..."

Piaget's detailed and systematic observations are the basis for studying the growth of reasoning abilities in young children and their understanding of the world. This extensive research (Piaget, 1967; Gruber & Voneche, 1977) on the Sensory-Motor, Pre-Operational, and Operational stages of development can be used by teachers and parents to better understand how reasoning processes follow certain fixed stages of development. Furthermore, Piaget's examination of how children perform on conservation of substance, space, time, number, volume, and quantity tasks illustrates how children form their perceptions of the world through constant interactions between their innate reasoning abilities, and the physical, psychological, and social world. By studying the work of this eminent psychologist and philosopher, we can learn an enormous amount about what types of reasoning abilities to look for in potentially gifted children and whether these abilities are advanced far beyond those expected for a child's particular chronological age.

The work of Maria Montessori (Fisher & Fisher, 1981), provides teachers and parents with benchmarks of advanced development. She said,

"No one can be free unless he is independent: therefore the first, active manifestations of the child's individual liberty must be so guided that through this activity he may arrive at independence. Little children, from the moment in which they are weaned, are making their way toward independence."

We recommend her seminal book, *The Montessori Method* (1964), for a better understanding of how teachers and parents can create an educational environment that stimulates the high-level abilities of children who might not usually behave as if they are potentially gifted. We should emphasize that the Dottoressa was trained as a physician. She became interested in education through her medical experiences with children from poor and disadvantaged homes. Based upon these experiences, she decided to design a special school in the slums of Rome, Italy. (Ironically, most American Montessori schools today are located in upper-middle-class neighborhoods!) Through her careful observations of young children, she formulated an educational method based upon offering stimulating learning materials organized into a graded sequence of difficulty levels. These materials were organized and presented in a manner which caused children to become self, or intrinsically, motivated. We believe that teachers and parents should use Montessori's curriculum ideas to set up stimulating learning opportunities for potentially gifted children. These children would then be able to "show off" their high abilities with ease and pleasure. Unfortunately, the Montessori movement never became a strong force in America's public schools because the dominant educational influences of the 1920's and 1930's objected to its philosophy and methods. If it had been more widely accepted by American educators during the 1920's and included in our present-day curricula, would Montessori's ideas have produced a better public education system for both gifted and non-gifted children? We think so because of Montessori's emphasis upon the maximum development of each child's unique abilities.

The third giant of early childhood education is Lev Vygotsky (1978), a Russian research psychologist primarily interested in how language affects children's reasoning abilities and social interactions. Like Piaget and Montessori, Vygotsky was a keen observer of children. The most important aspect of his work related to the study of giftedness was his research on the development of classification and reasoning skills in young children. Unlike Piaget, he

believed that human language played a crucial role in the successful development of these skills. Words followed a systematic progression from purely emotional meanings in babies, to concrete designations, to abstract meanings. Vygotsky's research on assessing children's abilities is also important for identifying the gifted because he designed a method of assessment for use by educational psychologists known as the "zone of potential development"—a method of comparing how children solve problems by themselves and with the help of a teacher. As individuals concerned with the study of giftedness in young children, we should examine Vygotsky's research to learn more about which features of children's language and reasoning demonstrate accelerated learning and exceptional language facility.

By studying the research and writings of these three individuals, what can we conclude about the types of behaviors and learning characteristics indicative of giftedness in young children? Can we develop a systematic observation instrument for use with young children that would be helpful to teachers and parents in identifying those who are potentially gifted? Our work in this area during the last several years has concentrated upon using the ideas and research of Piaget, Montessori, and Vygotsky to develop such an instrument (Fisher, 1988; Walters, 1990). We would like to discuss some of the observational categories which have been included in this instrument.

Accelerated Reasoning Abilities

Educators have usually concentrated upon the training of children's reasoning abilities and thinking skills beginning at the upper elementary level and through the secondary level. But Piaget's research demonstrates that these abilities and skills begin in infancy and make significant gains during the preschool and primary years. As Piaget has shown, babies and young children initially reason and solve problems primarily by means of their motor movements. We must systematically observe how children use their motor abilities to reason in order to identify advanced thinkers at the early childhood levels from infancy through ages 3 or 4. In addition, we must observe the sequence of preschoolers' behavior to determine if they are engaging in logical, step-by-step sequences of problem solving. If we observe relatively complex sequences of problem solving in a child between about 2 and 8 years, this behavior is an excellent indicator of giftedness.

Intrinsic or Self-Motivation

The Montessori method concentrates upon developing self-motivation in young children. This is achieved by designing the proper match between the child's ability and the difficulty level of the curriculum. If a young child consistently demonstrates this type of motivation in her/his play, problem-solving behavior, and powers of concentration, then we can validly say this child exhibits a characteristic of giftedness. Related to intrinsic motivation is the child's willingness to spend large amounts of time on difficult tasks, to work independently, and to attend to solving problems for much longer periods than is typical for his or her age. The eminent psychologist, J. McV. Hunt (1961), said that intrinsic motivation was the key to high levels of learning and achievement. He was the first American psychologist (in the 1960's) to show his colleagues how the study of Piaget and Montessori can help educators to design learning environments which encourage children to become self-motivated. A more recent exploration of the importance of self-motivation is discussed by Csikszentmihalyi, related to what he calls "flow" behavior (1990).

Accelerated Musical Abilities

All great musical geniuses such as Mozart and Haydn exhibited their abilities at an early age. Composing and playing music involve the use of extensive and complex cognitive skills such as reasoning, classification, encoding musical sounds into musical scores, and rhythmic interpretation. A child who shows early musical ability is not only engaging in aesthetic and affective activities, but is also using complex reasoning abilities. Therefore, musical abilities (both performance and composition) in young children are clear indicators of the ability to think and reason effectively.

Advanced Memory Abilities

Dr. Mary Meeker has said that the single best measure of giftedness, based upon her Structure of Intellect research, is high-level memory (1991). Why? The physiological and mental operations which underlie an excellent memory are related to the ability to recall many different events or things from the past in a coherent fashion, and to recall complex ideas quickly and vividly. In regard to memory, the great psychologist William James said, "The one who thinks over his experiences most, and weaves them into systematic relations with each other will be the one with the best memory."

Sensibility, the Sine Qua Non of Giftedness

This characteristic of giftedness is seriously overlooked in selecting program participants, mainly because it is difficult to measure with a standardized test, and it does not "fit in" with current behaviorist approaches to measuring human abilities. Through our research and observation we have concluded that giftedness is almost synonymous with high levels of sensibility. By this, we mean that gifted children show high levels of awareness to the nuances and gradations of different ideas, problems, theories, and methods in art, music, literature, history, politics, and the sciences. The result of this sensibility is to engage in behaviors we typically associate with giftedness, such as an interdisciplinary attitude towards learning, ethical awareness and analysis, concern with learning both content and process, an affinity for discussing ideas and problems, preference for higher-level thinking, and the need for ongoing challenges from teachers, parents, and peers. Sensibility involves a unique way of perceiving the world, as demonstrated by the writings, compositions, artistic creations, and theories of great authors, musicians, painters, and scientists.

We also have concluded that the behaviors and characteristics of potentially gifted children discussed in this essay, such as high-level problem solving and memory, culminate in producing the high levels of sensibility associated with giftedness. Although most types of sensibility are not expressed until the upper elementary and secondary levels, preschoolers can show some basic forms of sensibility which combine their reasoning abilities with divergent production skills. For example, a 4-year-old might become very interested in the "flying images" in Chagall's paintings and tell imaginative stories about what they mean. Or a 5-year-old might become very concerned with the plight of homeless people and organize his/her kindergarten to send food or money to groups serving the homeless.

Conclusion

Educators of the gifted should not abandon standardized tests in identifying young children who are potentially gifted. These tests, such as the Stanford-Binet and Wechsler Preschool and Primary Scales of Intelligence, have a long and illustrious history in identifying the gifted. During the last 60 years, Lewis M. Terman's conception of giftedness (1925), based upon using IQ tests, has been the predominant force in the gifted field. His identification procedure served many commendable purposes in the early days of this field, such as the use of standardized procedures for assessing children's abilities, and the design of statistically reliable and valid normative scales (deviation IQ's) for comparing children's abilities. However, because of the educational and social dynamics of the 1990's, we highly recommend that identification procedures be reconceptualized to reflect the needs of our current society and today's students. Instead of "identifying the gifted," the classroom teacher, in cooperation with parents and gifted program personnel, should become more concerned with documenting giftedness as a dynamic combination of in-school and out-of-school behaviors and characteristics. This documentation process will require teachers to become highly skilled at observing and recording those behaviors associated with giftedness. The foundation for honing such skills depends upon first studying the great observers of young children, such as Piaget, Montessori, and Vygotsky. By systematically studying these individuals and applying what they have learned to screening and identification, teachers will add an important ingredient to the selection process—the observation of giftedness in action. Furthermore, teachers will have more control over selecting children for gifted programs because their observations will become equal in importance to psychologists' test results.

In summary, our main ideas related to identifying young children for gifted programs are as follows (based on a paper presented at the 1991 meeting of the Pennsylvania Association for Gifted Education):

1. Educators of young children need to place more emphasis upon observing and recording the behaviors and characteristics which underlie giftedness.
2. The identification of the gifted must start in the classroom based upon the teacher's observations of her/his students' behavior.
3. Educators of the gifted need to systematically establish BEHAVIORAL DATA BANKS of gifted behaviors for use in training teachers to know "what to look for" in their classrooms.
4. Behavioral assessments of giftedness can be effectively used to identify different types of giftedness and to select gifted children from different ethnic groups.
5. The concept of SENSIBILITY underlies effective and useful behavioral indicators of giftedness.

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The Music Changes
(a poem in the Whitmanesque style)

I hear the music of the ages,
Bach at his organ, a joyous melody, Mozart at his harpsichord,
singing through his hands,
Beethoven at his piano, composing at only age five,
The music changes,

Joplin and his rags, a new idea to entertain,
The new generation of music, changea forever but not unchangeable,
For the music changes,

Miller and his band, always in the mood, Davis and his sax, Gillespie
and his trumpet, puffing out his cheeks,
But once again as always,
The music changes,

Berry through his guitar, changing music forever,
A new era to replace the old,
And the music develops,
Always changing, yet never vanishing, millions of sounds heard
throughout time,
The music changes,
but the audience remains.,

Mike Poland
Rio Americano High School

An Emily Dickinson Metamorphosis

Half by Half She scoots across the
Swaying Grass and fruitful
Trees—seeking Food to satisfy
Her Hunger—never dull.

Chewing down Food—She finds a Place
To spend the Time to rest—
Wrapped in Threads and huddled tightly—
Turning into her best.

Metamorphosis occurs as
She dreams—Warm and cozy—
Thinking of the Change that will make
Her feel happy and free.

Waking up, She breaks away from
The Nest She slumbered in—
Able to fly across the Sky—
With Wings as light as a pin.

She lands on colorful Flowers—
Her Thoughts are nonchalant.
The Wind is slowly blowing—pushing
Her towards a green Plant.

Robin Polansky
Rio Americano High School

Spotlight

Profiles

"We Have To Be On The Cutting Edge"

A Conversation with Elinor Smith

Talking with Elinor Smith is an experience in enthusiasm. She loves children, she loves educating children, and she is dedicated to seeing that all children reach high and grasp everything that is possible to them. She's an idealist and a realist at the same time, never giving up on one or losing sight of the other. Her commitment to gifted education is deep, both because of her own life experience and because of her interest in seeing all children function at their highest level.

Elinor says she entered teaching by the back door. She didn't originally prepare to teach, but decided she needed a year of doing a "mindless job" between her Master's and her PhD (in Slavic languages). Not finding one, she went back to her alma mater, Boston Girls' Latin School, as a substitute teacher, and what she expected to be a two weeks' job replacing the German and Latin teacher turned into a two-year experience and a conviction that teaching would be her life. She had gone to Girls' Latin in the 7th grade and remembers it as a "breath of fresh air" for a gifted girl. Marriage, a move to California, teaching in a private school while she completed a California credential, many years of teaching, work in Sacramento in the State Department of Education, and now her own educational consulting business have filled her life.

On the most important issues facing gifted education:

One of the most important needs facing gifted education is to become a part of the larger school reform movement and be sure that what we do in educating gifted children keeps us moving ahead. Gifted education must always be on the cutting edge, and while we must keep our goals for gifted children firmly in mind and remember why gifted education exists, we cannot afford to drag our feet or feel threatened by an idea because it is new. For example, we need to look at identification in some new ways—make true use of multiple criteria and portfolio assessment and expand the role of observation in the identification process. It is important that we do a better job of finding the gifted children from a variety of populations.

On gifted girls:

Being gifted and being a girl is a definite plus, providing more options for surviving and more ways to contribute. What about the difficulties that gifted girls face? They're there, no doubt about it, but they can be met. As a product of an all-girls schooling (Girls' Latin School and Radcliffe), I feel that it has been an advantage to be educated in an atmosphere where women do not have to compare themselves with men or fit into the specific roles which society outlines for females (and there was no problem adjusting to "coed life" after graduation). The challenges faced by gifted girls are the same ones faced by women in general, and it is important to work with teachers so that they understand the subtle messages of limitation which society sends to women about their abilities and roles. Research on girls in general and gifted girls in particular suggests that as teachers we reinforce those messages, thereby short-changing girls. A wonderful book describing the limitlessness of women's approach to their lives is Mary Catherine Bateson's *Composing a Life*. The author focuses on the multiplicity of careers and lives that people of today will experience, instead of the lifetime commitment that was the rule for former generations. She suggests that being female makes it easier to handle a life which is always redefining itself, with changing roles and responsibilities. Women, after all, have always lived this way.

On the best kind of gifted program:

This happens when teachers look for giftedness in many ways and from different viewpoints, and when we translate what is known about the nature of gifted students and how they learn into strategies to help us understand and meet student needs. Teachers should be looking at current research, using it continually, and be involved in continuous self-evaluation. Teachers who are themselves bright have an intuitive understanding of giftedness and they can combine this with training in the use of many strategies and approaches to teaching gifted students. They must see students as individuals with individual needs. They must be able to see through the exterior and find the inner student. They should have leadership

with vision. These teachers will never confuse giftedness with achievement.

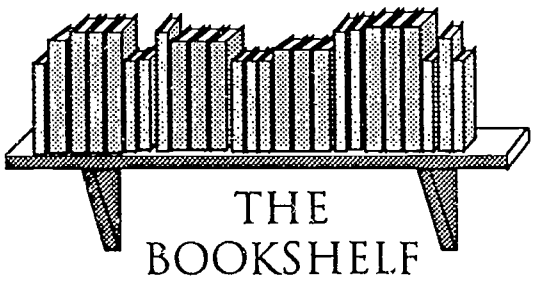
A good program will have a framework to insure consistency across the levels, and if we have this kind of program, with multiple criteria assessment, well-planned differentiation, and creative teaching strategies, we can serve all gifted children equally.

There is a need to create an atmosphere in gifted programs (in all education, really) which will give a sense of empowerment to parents and students in underrepresented populations. Groups which see themselves as valued perform at a higher level than groups that have a low sense of esteem. Experimentation with different teaching strategies which would improve learning among low socio-economic groups—more holistic learning and peer coaching, teaching teachers how to be better questioners, less rote learning—is vital. We must create an atmosphere that includes the parents in their child's learning, making them a needed part of their children's school experience.

On her contribution to gifted education:

It's the satisfaction of having been able to help as many teachers as possible understand giftedness in the many ways in which it shows itself and to appreciate the needs of gifted children.

Her work goes on. Her consulting business has taken her all over California, across the country, and around the world, with Singapore one of her latest stops. She continues to be involved with the San Diego Unified School District in developing their long-range plans to continually improve their already excellent program. Elinor Smith is dedicated to bringing that "breath of fresh air" she first experienced at the Girls' Latin School to gifted children in all parts of the globe.



Playing Smart

by Susan K. Perry
Free Spirit Publishing, Inc.
Minneapolis, MN

Would you and your child like to "find adventure in ordinary places?" Or perhaps enjoy "physical activities that exercise the mind?" Maybe you would rather explore "dirt, worms, bugs, and mud" before tasting "mind snacks: recipes for kitchen learning."

Playing Smart contains 210 pages with eleven such chapters, plus a special supplement titled "Introducing famous authors through their books for children." This book is advertised as a parent's guide, but it is also useful for teachers, aides, and child care providers. The collection of activities is varied, from simple to complex, and ranges from age 4 to age 14.

These enriching, offbeat learning activities can cause one idea to lead to another to another and so on, until the activity is more individual and personalized. There may be nothing new under the sun, but there are always new ways to look at our world, a different way to express something, a change in perspective, and fun to be had along the way.

Each chapter contains numerous activities and suggestions, and concludes with several pages of resources. These resources are a fine supplemental source for further exploration. This book can be used to develop quality time together for the child and adult, creating learning and interaction between generations. *Don't read this chapter!*, besides catching your attention, offers intriguing paradoxes and mind stretchers for child and adult alike. (Can we adults rise to the challenge?)

Playing Smart definitely has a lot of food for thought.

Reviewed by Emelie Neher, Joshua Tree Region Parent Representative and Special Education teacher, San Bernardino City USD.

Spotlight

Programs

"The Sky's Not the Limit Here"

A Visit to Christine Hoehner's Class

Walk into Christine Hoehner's room at Washington School in Montebello and your senses are assailed by all the things in the room—things to read, things to write, things to see, furry things to pet, colorful things, things to experiment with, things to stimulate young minds. It's chaotic order and it's wonderful.

Christine teaches a 2-3-4 highly gifted class of culturally diverse students, whose IQ scores are 140 or above. Hers is one of four highly gifted classes in Montebello, all of which rely on parent transportation.

Parents are deeply involved in all aspects of the program. Christine looks on the parent conference, not just as a time to give the parents information, but as an opportunity to learn about her children, and her first question to the parents is, "What do you want me to know about your child?" All of the highly gifted classes in Montebello join in four parent nights held at the district office. These include a pot-luck dinner followed by a program, which may be the exploration of a subject area to enrich the parents' understanding of what is happening in the classroom, or it may be the high school counselor to help them look ahead, or perhaps parent panel discussions with a parent-help-parent approach, or former students who return and tell about their experiences.

Christine's students hold their own class parent night in June. The students plan this event (which starts with a pot-luck dinner) to show their parents what they have learned during the school year. They may put on a debate, set up a puzzle for the parents to solve, do a paper and pencil science activity, a readers' theater presentation, dance (parents dance too!), set up the stores for parents to be customers, or prepare a slide show of the year's activities.

Christine also has her own class parent advisory committee. She makes sure it's ethnically balanced, and she asks parents to advise her on curriculum. What most excites the children? What is most useful to them? What gives them problems? Last year one of her questions was, "How about a class trip to the Biosphere?" and the parents enthusiastically agreed!

Math in the class is individual, and each child is encouraged to move ahead as rapidly as understanding permits. Above-grade-level math material is provided when it is needed, and the approach is highly flexible. In several instances arrangements have been made for children to go to the intermediate school or the high school for math. That these arrangements have been successful is due to the good rapport set up between the class and the teachers at the high school, and to careful monitoring of the progress of the students.

Economics becomes practical and immediate in Room 21. Chris begins the year with some hands-on lessons in the history of economics, and the children get involved in a barter system. As they realize just how cumbersome this is as a way of paying for things, the class works into a money (purple beans and gold aquarium pebbles) economy. This gives way to a modern banking system with checks, savings accounts, paper money, and credit cards. In the spring the class begins to set up a market place. Every Tuesday is "stores day" for a part of the morning. Students may apply to set up a store to sell goods (second-hand stuff to homemade cookies to whatever). They apply to the bank for approval, pay rent, keep accounts of their profits, pay sales and income taxes, and make decisions about the future of

Views of the 2-3-4 grade highly-gifted class in Montebello

their business. The class visits a local bank and local businesses as part of this activity to see the real thing in action.

Language arts is richly varied, and lots of reading happens. The younger children meet and read together each day, while the older ones may be reading independently most of the time, using the literature text, books of poetry, plays, and trade books. Very little emphasis is put on written assignments for reading, but there is much discussion. The class walks to the public library every other week to get books and to do a library skills assignment. Read-aloud guests are invited to the class, and when the mayor of Montebello comes to read aloud, everyone *knows* reading is important. There is journal writing, silent reading, a weekly speech (a speech is videoed and shown at the November parent conference), a weekly book report, and a readers' theater. A poetry unit introduces the students to rhyme and meter and different types of poetry, and the children read, write, and memorize poetry.

Another feature of language arts is debate. Christine has four-student, mixed-grade teams, with a speaker on each side for the opening, first rebuttal, defense, and last rebuttal. The debate teams choose from a number of topics, spend several weeks collecting information and practicing, and then present the debate to the class. The entire class acts as judges, using a point system and a carefully worked-out judging sheet.

What's the secret of all this? Bright kids, dedicated and caring parents who are involved in their children's education, and an innovative teacher who doesn't believe there's a limit to progress. It's a winning combination in Montebello.

Spotlight features are researched and written by Jean Drum, Communicator *Editor.*

Nurturing Giftedness in Young Children

by Wendy C. Roedell

Versions of the following conversation can often be heard when young gifted children start school. "Bill doesn't belong in kindergarten!" the parent cries. "Look, he's reading at the fourth grade level and has already learned two-column addition." The teacher or principal, having already decided this is a "pushy parent," replies, "Well, Mrs. Smith, Bill certainly doesn't belong in first grade; he hasn't learned to tie his shoelaces, and he can't hold a pencil properly, and he had a tantrum yesterday in the hall."

The problem in this continuing controversy is that both parties are usually correct. Some gifted children entering kindergarten have acquired academic skills far beyond those of their age mates. Such children master the academic content of kindergarten when they are 3 years old. However, their physical and social development may be similar to that of other 5 year olds, making an accelerated placement a mismatch as well. The usual solution is to place a child like Bill in a program matched to his weaknesses, rather than his strengths. Bill usually ends up in kindergarten, where his advanced intellectual development becomes a frustration to his teacher, an embarrassment to his peers, and a burden to Bill.

Educators justify this placement by saying, "Bill needs socialization; he's already so far ahead academically, he doesn't need anything in that area." There are two major problems with this rationale. First, educators are essentially telling such students that there is no need for them to learn anything in school. The second problem is revealed by examining the so-called socialization experienced by a brilliant 5-year-old like Bill in a kindergarten class of 25 to 30 students. A major component of early socialization involves a child's feeling that she or he is accepted by others—teachers and children alike. If the teacher does not validate a gifted child's advanced abilities and intellectual interests by making them part of the ongoing curriculum, the child experiences no feelings of acceptance from the teacher. If, as is highly likely, this child makes the additional discovery that she or he is quite different from most classmates and that communication is extremely difficult because of differences in vocabulary and modes of expression, then the child misses peer acceptance as well. In fact, this first school experience, which should furnish the impetus for future enthusiasm about learning, can be a dismal failure for the brilliant child in a lockstep kindergarten program. Often these children learn to hide or deny their abilities so as to fit in better with the other children. Or, they may develop behavioral problems or psychosomatic symptoms such as stomach-aches and headaches, causing parents to confront the school with justifiable concern.

Understanding Uneven Development

It is important to remember that these children very often do not develop evenly. In fact, young gifted children frequently show peaks of extraordinary performance rather than equally high skill levels in all cognitive areas. The child who learns to read at age 3 or who shows unusually advanced spatial reasoning ability, for example, may not be the child with the highest IQ or the earliest language development. Unique patterns of development can be observed within a group of gifted children, and uneven development is frequently evident in the pattern of a single child. In some cases, it seems as though children's abilities develop in spurts, guided by changes in interest and opportunity. Reading ability, for example, might develop almost overnight. Children who know all their letters and letter sounds by age 2 1/2 may remain at that level for some time, perhaps until age 4 or 5, and then in a matter of months develop fluent reading skills at the third or fourth grade level.

Another area of unevenness in the development of gifted young children is found in the relationship between advanced intellectual development and development of physical and social skills. Evidence seems to indicate that intellectually gifted children's performance in the physical domain may only be advanced to the extent that the physical tasks involve cognitive organization. And, although intellectually advanced children tend to possess some advanced social-cognitive skills, they do not nec-

essarily demonstrate those skills in their social behavior. In other words, they may understand how to solve social conflicts and interact cooperatively but not know how to translate their understanding into concrete behavior.

It is not uncommon to find gifted young children experiencing a vast gap between their advanced intellectual skills and their less advanced physical and emotional competencies. For example, 4- and 5-year-old children may converse intelligently about abstract concepts such as time and death and read fluently at the fourth grade level, yet find it difficult to hold a pencil or share their toys with others.

Often these uneven developmental levels can lead to extreme frustration, as children find that their limited physical skills are not sufficiently developed to carry out the complex projects they have imagined. These children may throw tantrums or even give up on projects without trying. Adult guidance in developing coping strategies can help such children set more realistic goals for themselves and learn how to solve problems effectively when their original efforts do not meet their high expectations.

Adults, too, can be misled by children's advanced verbal ability or reasoning skill into expecting equally advanced behavior in all other areas. It is unsettling to hold a high-level conversation with a 5-year-old who then turns around and punches a classmate who stole her pencil. Sometimes young children's age-appropriate social behavior is interpreted as willful or lazy by parents and teachers whose expectations are unrealistically high. The only accurate generalization that can be made about the characteristics of intellectually gifted young children is that they demonstrate their unusual intellectual skills in a wide variety of ways and that they form an extremely heterogeneous group with respect to interests, skill levels in particular areas, social development, and physical abilities.

Understanding the unique developmental patterns often present in gifted young children can help both parents and teachers adjust their expectations of academic performance to a more reasonable level.

Choosing a Program or School

One of the few psychological truths educators and psychologists agree on is that the most learning occurs when an optimal match between the learner's current understanding and the challenge of new learning material has been carefully engineered. Choosing a program or school for a gifted child who masters ideas and concepts quickly but behaves like a typical 4-or 5-year-old child is indeed a challenge.

Many intellectually gifted children master the cognitive content of most preschool and kindergarten programs quite early. They come to school ready and eager to learn concepts not usually taught until an older age. However, academic tasks designed for older children often require the learner to carry out teacher-directed activities while sitting still and concentrating on written worksheets. Young children, no matter how bright they are, require active involvement with learning materials and often do not have the writing skills required for above-grade-level work.

Since many gifted children will hide their abilities in order to fit in more closely with classmates in a regular program, teachers may not be able to observe advanced intellectual or academic abilities directly. If a kindergartner enters school with fluent reading ability, the parent should share this information at the beginning of the year instead of waiting until the end of the year to complain that the teacher did not find out that the child could read. When parents and teachers pool their observations of a child's skills, they begin to work together to develop appropriate educational options for nurturing those abilities. Parents whose children have some unusual characteristics that will affect their learning needs have an obligation to share that information with educators, just as educators have an obligation to listen carefully to parent concerns.

When the entry level of learners is generally high but extremely diverse, an appropriate program must be highly individualized. Children should be encouraged to progress at their own learning rate, which will result in most cases in subject matter acceleration. The program should be broadly based, with planned opportunities for development of social, physical, and cognitive skills in the informal atmosphere of an early childhood classroom.

One primary task of teachers is to make appropriately advanced content accessible to young children, taking into account individual social and physical skills. Lessons can be broken into short units, activities presented as games, and many concepts taught through inquiry-oriented dialogue and experimentation

with manipulatable materials. Language experience activities in reading and the use of manipulatable mathematics materials, as described in products such as *Mathematics Their Way* (Baratta-Lorton, 1976), are good examples of appropriate curriculum approaches.

An appropriate learning environment should also offer a gifted young child the opportunity to discover true peers at an early age. Parents of gifted children frequently find that, while their child can get along with other children in the neighborhood, an intense friendship is likely to develop with a more developmentally equal peer met in a special class or interest-based activity. Such parents may be dismayed to discover that this best friend does not live next door but across town, and they may wonder whether or not to give in to their child's pleas for inconvenient visits. Probably one of the most supportive activities a parent can engage in is to help a child find a true friend and make the effort required to permit the friendship to flower.

In looking for an appropriate program for their gifted preschooler, then, parents must be aware of the learning needs of young children and not be misled by so-called experts who advocate rigid academic approaches with an emphasis on rote memorization and repetition. Rather, wise parents will look for open-endedness, flexible grouping, and opportunities for advanced activities in a program that allows their child to learn in the company of intellectual peers.

ON THE LIGHT SIDE

by Jean Watts

Well, since you asked... It's the travels of a worm who intended to go to Cincinnati but was distracted by an alien who convinced him there was an invasion of rabid armadillos (those are their tracks) that he should trip by sliming their paths before he finished digesting the earth for the plants, even though he promised them first because their roots were starved from acid rain...

Resources

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Spivack, G. & Shure, M.B. (1974). *Social adjustment of young children.* San Francisco: Jossey-Bass.

Additional Reading

Smutny, J.F., Veenker, K., & Veenker, S. (1989). *Your gifted child: How to recognize and develop the special talents in your child from birth to age seven.* A practical sourcebook containing a wealth of information for parents and educators of young gifted children. Leads parents through infancy and early childhood, discussing topics such as language development, creativity, and how to choose schools. Provides a developmental checklist. New York: Facts on File.

Wendy C. Roedell is the director of the Early Childhood Education and Assistance Program, Educational Service District 121, Seattle, Washington, and senior author of Gifted Young Children.

STUDENT PERSPECTIVE

by Alison Steube

Being gifted is a little like adopting a stray cat It seems like a nice idea to have a cute, furry, cuddly plaything, until you realize that you need to change the kitty litter, buy the food, clip its claws, pay the vet bills, and lock the cat in the closet when friends with allergies come to visit.

Like the stray cat, being gifted just shows up on your doorstep and becomes a responsibility. You need to constantly find new challenges to keep it happy, you need to satisfy its curiosity, you need to keep it from becoming obnoxious, and you need to maintain it with activities outside of school. For a teenager, being gifted can be a severe liability, permanently locked in the closet because everyone between the ages of twelve and seventeen seems to be allergic to it.

I actually left the stray cat our family adopted at home when I left for college, but having made it through the first 18 years of my life without too many scratch marks, I wanted to offer a few reflections.

As a seventh grade talent search participant, I was a confirmed "math nerd." I had skipped two years of math, and I was the bane of my geometry class for always messing up the curve. With stringy blond hair, millions of split ends, braces, very little coordination, and a conviction that, while I did OK in English classes, I had a quantitative mind designed primarily for multi-variable analysis, I desperately needed a summer at TIP.

After I took my SAT's and pulled off a respectable verbal score, Dr. Sawyer, then Director of TIP, suggested that perhaps I should pursue a course in the humanities. My first summer, I enrolled in Writing I, and I returned home as a "math and verbal semi-nerd." I came back for three more years and took European History, International Relations, and American History. Now, as a freshman at Duke, I plan to double major in history and biology, largely because of the incredible experiences in the humanities I had at TIP.

While my academic experiences were important, the most significant impact of the TIP summer program grew out of the friends I made and the confidence I developed. My second summer, I "decided to become an extrovert," as I wrote in my journal at the time, and I introduced myself to anyone and everyone I met, secure in the knowledge that, even if I made a complete idiot out of myself, I wouldn't see these people again for at least a year.

I ended up realizing that high SAT scores did not make me a social outcast, and I returned to my high school determined to be a "new person." However, becoming a "new person" among people I had known for ten years was more of a challenge than any course I had taken at TIP. In one particularly memorable conversation, a classmate who had attended TIP with me said to a mutual friend, "You know, it was unbelievable! At TIP Alison was *popular*." These kinds of comments send TIP alumni back to their photo albums, longing even for the taste of DUFS food in the face of "real life" at home.

In addition to adjusting to old images after a "transformation" at TIP, coming home to ordinary classes was somewhat disappointing. I went to a small, independent, all-girls school whose administration went out of its way to accommodate my interests, allowing me to move ahead in math and take advanced courses in history and physics.

But taking advanced courses did not transform real life into TIP. As a Calculus student in ninth grade, I was learning more advanced material, but I still understood the concepts more quickly than the eleventh graders in my class, and I still ended up doing my history homework instead of paying attention. Being at a higher level does not guarantee a greater challenge.

In some cases, grade skipping or taking advanced courses may be the only way to stay awake in class. But I would recommend looking for challenges in extracurricular activities instead. I decided not to graduate from high school a year early, and as the fall of my senior year approached and many of my close friends headed off to college, I had serious misgiving about my decision. But in retrospect, I'm extremely glad I stayed and graduated with my

Alison Steube attended Duke's Talent Identification Program (TIP) Summer Residential Program for four summers and was a freshman and Angier B. Duke Scholar at Duke Universi'y when she wrote this article. It has been reprinted with permission from TIP Network News, *Fall 1991.*

class. Senior year is a unique experience, and high school offers a lot more than algebra, trigonometry, Shakespeare, and chemistry—it can teach gifted students to overcome challenges, to relate to other people, and to act as effective leaders while contributing their talents to their school and their community.

As a "gifted" student, one of the things that bothered me most was whether I deserved the good grades I received or simply had gotten the right strands of DNA and thus "naturally" succeeded. Being "gifted" implies that achievement is presented in a box with red and gold ribbons, and that the "gifted" (so called hope of the future) just got lucky.

This implication really irritated me, and I desperately wanted to achieve something that was completely my own. So, in eighth grade, I decided to try out for the volleyball team. I was a dismal volleyball player—I couldn't get the ball *to* the net with an underhand serve, much less hit it over, but I refused to give up and spent all of March, April, May, and June of eighth grade in the gym. My parents were a bit confused—after all I could have been taking Greek outside of my six regular classes, and instead, I was pursuing a hopeless quest for a spot on the 1996 US Olympic Volleyball Team.

My Olympic aspirations have since faded, but after months of grim determination, I found myself accepting the 1987 JV Volleyball League Championship Trophy as Co-Captain of the Team—and I knew I had earned it, all by myself.

With that experience in mind, recognize that, if your completely uncoordinated daughter suddenly demands to take ballet lessons (I tried that too, and I learned to pirouette—sort of), she may just want to prove something to herself. "Giftees" need to know they can achieve something on their own, without a "natural" advantage.

Speech and debate offered me another kind of challenge. People who do forensics (meaning speech and debate, not autopsies) are a strange breed. We get up early on Saturday mornings, we memorize hundreds of facts and pages of oratory, and we devote hours to standing up in front of people and talking. As a result, students who compete tend to be a lot like TIPsters—motivated, intelligent, and genuinely fun to talk with.

In addition, the actual competitive events offer enormous challenges. Competing in Extemporaneous Speaking, I had thirty minutes to prepare a coherent answer to questions ranging from "How will Barbara Bush differ from Nancy Reagan as first lady?" to "Should the Federal Reserve lower interest rates to help prevent a recession?" I also competed in Original Oratory, writing, revising, and memorizing three different ten minute speeches on topics I chose and developed. Students can also compete in dramatic categories and debate, so the opportunities are immense. Best of all, forensics teaches how to organize ideas and speak effectively, skills which I know I will use after high school.

I also recommend getting involved with a school newspaper. I started writing for *Limelight*, our school paper, on a whim, and ended up Editor-in-Chief three years later. Journalism offers students who enjoy writing a chance to do first-hand research and see their work in print, and leadership positions challenge them to delegate responsibility and deal with crisis situations on a day-to-day level.

For example, in one particularly harrowing escapade, one of *Limelight's* zealous reporters somehow got on the phone with a press spokesman at the White House and engaged in an argument that ended with his calling the school to identify her as "the rudest person I have ever spoken to in my entire life." Blurry or non-existent photographs, misspellings of the headmistress's name, statistics off by a factor of ten, computer viruses, and other minor and not-so-minor mishaps ensured that the job was never boring and prepared me to take on leadership responsibilities in college and real life.

In addition to traditional extracurricular activities, gifted students should consider doing some sort of community service. At Duke, I'm involved with a club that goes into a Durham inner city school and does science experiments with third and fourth graders. Working with these children has helped me realize how lucky I was to go to an independent school with excellent facilities, and it has given me the chance to get kids excited about science. Gifted students have tremendous potential to act as role models, and doing community service is one way to use their talents to inspire other people to succeed.

Extracurricular activities provided me with dozens of challenges, and at home, my parents supported all my endeavors. Although they had their doubts about my professional volleyball career, they had the patience to listen to my tirades about *Limelight* and my ever vacillating political views. Perhaps the best thing they did was to insist on the whole family eating dinner together every night. Ever since I could sit up in a high chair, I've had dinner with my parents, and they have always treated me as an adult.

We discussed anything and everything over dinner, from neurobiology to real estate development, and I was forced to defend my views and think about my ideas. I often resented having to give up forty-five minutes to dinner, when I had tests to study for and deadlines to meet, but I look back on those meals as one of the most important parts of my childhood.

At school and at home, growing up gifted was an adventure. Even with fantastic extracurricular activities, meaningful classes, and intellectual dinner-time conversations, being gifted has its bad days. The frustrations, the stereotypes, and the sense of some burgeoning responsibility to humanity are constantly scraping at the back of my mind, and unlike a stray cat, being gifted can't be declawed. Fortunately, in college, fewer people are allergic to giftedness.

How Culture Influences Gender Stereotyping: Awareness Activities

by Susan Johnsen

Our culture is defined by the ways that we live—our beliefs, our traditions, and our values. These are influenced by family, friends, schools, churches, governments, associations, and the media. To examine your own beliefs, divide a piece of paper into four sections. Take a minute and think about something you like to do that is typical for females. Record these ideas in one of the quarters of your paper. Label this quarter "Positive Activities—Female." Now take another minute to think about something you *don't* like to do that is typical for females. Record these ideas in another quarter of your paper. Label this quarter "Negative Activities—Female." Now take another minute and think about something you like to do that is typical for males. Record these ideas in the third quarter of your paper and label it "Positive Activities—Male." Now take one last minute and think about something you *don't* like to do that is typical for males. Record these ideas in the final quarter of your paper and label it "Negative Activities—Male." Now think about what you have listed. Did you have any difficulty identifying the male and female activities? How are the activities that you labeled "male" different from the ones that you labeled "female?" Were there many activities that were the same for both genders?

While some of you may have found this categorization of activities difficult, our culture still tends to define many aspects of our everyday life by gender. For example, when recently purchasing a McDonald's *Happy Meal* for my seven-year-old son, I was asked if the youngster was a boy or a girl. In this case, boys received racing cars while girls received Barbie dolls. Walking into a large toy store, a young boy or girl often can identify easily the "girls' aisles" and the "boys' aisles" simply by the color and the nature of the items. Many girls play with toys that stimulate less aggressive and more nurturing behaviors. The reverse is true for boys. Even when parents attempt to provide less stereotypical activities and more gender-fair expectations for their youngsters, our culture still, and often unintentionally, fosters more standardized roles for each gender. In fact, even with equal ability, gifted girls do not often achieve the success and satisfaction that they might desire (Reis and Callahan, 1989). Statistics tend to corroborate these opinions:

- Between childhood and adolescence girls lose self-confidence at twice the rate as boys. An American Association of University Women (AAUW) survey showed that in elementary schools 60% of girls and 67% of boys said that they were "happy the way I am." Eight years later, however, 46% of boys and only 29% of girls agreed with that statement. (AAUW, 19990).
- Even though gifted girls' and boys' academic achievement levels are equal, the gifted girls perceive themselves as being less capable and competent than boys (Kelly and Jordan, 1990).
- High-achieving girls receive the least attention from teachers (Sadker & Sadker, 1985).
- Parents of daughters believe that their daughters must work harder in math courses, as compared to the opinions of parents of sons (Parsons, et al., 1982).
- Girls are less likely than boys to take the most advanced courses and be in the top-scoring math groups (AAUW, 1992).
- Girls who are highly competent in math and science are much less likely than boys to pursue scientific or technological careers. Only 29% of girls want to be scientists versus 52% of boys (AAUW, 1992).
- Women constitute over 45% of the workforce, but only 7.6% of the engineers (U.S. Bureau of Labor Statistics, 1989).
- At the prekindergarten and kindergarten level, 97.8% of the teachers are female; at the secondary level, 52.6%; and at the university level, 38.7% (U.S. Bureau of Labor Statistics, 1989).
- Some 94.2% of the registered nurses are women while only 17.9% are physicians (U.S. Bureau of Labor Statistics, 1989).
- Women constitute 98% of the country's secretaries, 41% of the managerial positions, and only 3% of the senior executive positions (Segal & Zellner, 1992).

Dr. Susan Johnsen is in the Department of Educational Psychology, Baylor University, Box 7314, Waco, Texas 76798-7314

- The U.S. Senate is 98% and the U.S. House is 93.4% male.
- From 1954 to 1989, only eight women appeared on the cover of *Sports Illustrated* as compared with 173 men (Larson, 1992).

Gifted girls initially have equal scores on achievement tests, but by the time they reach high school, they appear to take less challenging courses and select more female-dominated careers. Reis and Callahan (1989) provide an excellent overview of factors that might contribute to the preceding described differences, and while some progress has been made, cultural expectations still appear to limit a gifted young woman's career opportunities and choices.

The literature is filled with recommendations that might produce equal opportunity among both genders and that might encourage gifted girls in establishing, developing, and attaining goals that would match their abilities and interests (Higham & Navarre, 1984; Hollinger & Fleming, 1988; Noble, 1987; Reis, 1987). In her book *Smart Girls, Gifted Women*, Barbara Kerr also discusses important elements in the guidance of gifted girls, such as time alone, the value of mentorships, the failure to accept sex role stereotypes, and the development of a strong sense of identity and mission for one's life. Recently, the American Association of University Women (1992) made eight recommendations for ensuring equity between genders. They include the strengthening of Title IX; increasing awareness of gender equity among teachers, administrators, and counselors in our schools; including experiences of women and men from all walks of life within the school curriculum; encouraging girls in science and mathematics; continuing attention to gender equity in vocational education programs; incorporating gender fairness in testing and assessment; including girls and women in decision-making positions that focus on educational reform; and enabling educators to assist students in dealing effectively with the realities of their lives, particularly in areas such as sexuality and health.

In the majority of cases, researchers emphasize the need for educating teachers, parents, and students about those aspects of our culture that may reinforce gender-specific roles that may limit career and lifestyle options. A first step in this education process is to create a conscious awareness about subtle and direct messages that are found in our language and other communication systems. The activity at the beginning of this article could be used with students and teachers alike in creating such an awareness. Some additional gender awareness activities that might be used in the classroom or in staff development workshops are included with this article.

Activity Discussion: At the end of the activity evaluations, graph the results. Have the participant describe similarities and differences between their results and national or state statistics. Generate a set of implications and consequences from their studies. The teacher might want to pose their findings as a possible problem or "fuzzy," using the creative problem-solving process in designing an action plan.

In summary, much research and many recommendations have been generated in the last twenty years regarding the equalization of opportunities for both genders. The culture still tends to define more limiting roles for females, thereby inhibiting the satisfaction and achievement of many gifted girls and young women. Education needs to be continuous. Educators and their students need to become aware of the influences that are present in their everyday lives that shape their beliefs and attitudes about their lifestyles and their future. It is only at that point that we may all gain insights into what must change to ensure an achievable match between a gifted youngster's abilities and her interests.

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Activity 1. Put together a commonly-read set of magazines and newspapers in your community or school. In small groups, have the participants evaluate the magazines and the newspapers using the forms shown in Figures 1 and 2.

Figure 1. Magazine Evaluation

Tally the number of	Females	Males
Publishers		
Editors in Chief		
Managing Editors		
Senior Editors		
Features Editors		
Others (list titles)		
Advertisements featuring		
In advertisements, what do each sell? For example: detergent, dog food, cat food, diet drinks, car parts, aspirin, jeans, perfume.		
Articles, stories, or photos featuring		
What do each do in the articles, stories, or photos? For example: sell a company, demonstrate new invention, describe a new way for cooking pasta.		

Editor's note: The following section should be included with each of Figures 1-4, with the name of the type of media substituted for "magazine."

According to the magazine, which of the words below best describe males and females? Indicate by writing an "M" or "F" beside the appropriate words. If the word describes both, write "M/F". If the word describes neither, leave blank.

Active	Knowledgeable
Affectionate	Leader
Ambitious	Loud
Baby/Child-Oriented	Loving
Bossy	Modest
Capable	Poised
Clever	Rebellious
Competitive	Responsible
Concerned about Appearance	Saracastic
Condescending	Sentimental
Confident	Serves Others
Dependent	Sexy
Dominant	Sincere
Emotional	Smug
Flirtatious	Soft-hearted
Forceful	Strong
Gentle	Submissive
Home Oriented	Tough
In Charge	Violent
Independent	Worrying*

**Add other words which describe the subtle and direct messages in this magazine*

Figure 2. Newspaper Evaluation

Tally the number of	Females	Males
Editors in Chief		
Managing Editors		
News Editors		
Sports Editors		
"Life Style" Editors		
Entertainment Editors		
Photographers		
On the front page (photos or news)		
On the editorial pages		
On the sports pages		
In the "Life Style"		
Others		
In advertisements, what do each sell? For example: detergent, dog food, cat food, diet drinks, car parts, aspirin, jeans, perfume.		
Why are they in the news? For example: sold a company, won Nobel prize, organized the symphony ball, running for Senate.		

Activity 2. Give each of the participants one or both of the evaluation forms in Figures 3 and 4 to examine local radio and/or television programming. Have the participants watch or listen for a specific period of time and then have them bring their results back to the remaining group members. The leader may wish to record radio and TV broadcasts so that all participants will have a common set of experiences.

Figure 3. Radio Evaluation

Tally the number of	Females	Males
Disk Jockeys		
Newscasters		
People in the news		
Songs sung by		
Background voices in commercials		
Products advertised by		
In advertisements, what do each sell? For example: detergent, dog food, cat food, diet drinks, car parts, aspirin, jeans, perfume.		
Why are each in the news? For example: sold a company, senator, sent to prison, won a sports event.		

Figure 4. Television Evaluation

Tally the number of	Females	Males
Leading characters		
Secondary characters		
Characters mentioned but not shown		
Producers		
Directors		
Screen writers		
In advertisements, what do each sell? For example: detergent, dog food, cat food, diet drinks, car parts, aspirin, jeans, perfume.		
What do each do in the TV program? For example: laugh, run, answer questions, give instructions.		
What roles do each play? For example: reporter, boss, doctor, lawyer, CEO, detective, explorer.		

NRC G/T

An Analysis of the Research on Ability Grouping:
Historical and Contemporary Perspectives...Executive Summary

by James A. Kulik

Research literature on ability grouping used to be like the Bible. You could quote from it to support almost any view. Both advocates and opponents of grouping cited it to back their positions. Now, reviewers are using new statistical methods to organize and summarize the literature on grouping, and its message has become clearer.

The reviewers have painstakingly catalogued the features and results of hundreds of studies, and with the help of new statistical methods, they are drawing a composite picture of the studies and their findings. Their reviews have already shown that certain approaches to grouping consistently produce positive effects on children while other programs seldom produce measurable effects.

These scientific analyses of the research literature could hardly be more timely. In school systems around the country, parents, teachers, and school administrators are wrestling as never before with questions about ability grouping. They have read Jeannie Oakes's book *Keeping Track*, and they know the arguments against grouping. They also know the arguments in favor of the practice. Now, they want dependable answers. What does the research say?

What is Ability Grouping?

Ability grouping, or homogeneous grouping, is the separation of same-grade school children into groups or classes that differ markedly in school aptitude. School personnel usually separate children into ability groups on the basis of test scores and school records. Ability grouping plays a key role in a number of school programs: separate classes in elementary schools for children of high, middle, and low aptitude; single-subject grouping in high school; cross-grade grouping for reading or arithmetic; special classes for the gifted and talented; and within-class grouping.

Writers on educational issues usually distinguish between ability grouping and tracking. They reserve the term *tracking*, or *curricular tracking*, for high school programs in which students choose, on the basis of their educational and job goals, either college-preparatory, general, or vocational classes in English, mathematics, and other subjects. Such tracking differs from ability grouping in several respects. First, curricular tracking occurs only in high schools, whereas ability grouping can and does occur at all levels of education. Second, students themselves make course decisions in tracking programs, whereas preferences of pupils and their parents seldom play a role in placement into ability groups. Third, same-grade courses in different curricular tracks have different curricular objectives, whereas all ability-grouped classes in the same grade may have the same objectives.

The Art of Research Reviews

Researchers have been conducting controlled experiments on ability grouping for more than a half century. One of the first of these experiments took place in 1927 in Salt Lake City. At the beginning of the school year, a researcher identified two equivalent groups of elementary school children. Pupils in one group were separated by ability into homogeneous classes; the other group was assigned to mixed-ability classes. At the end of the school year, the researcher found that children from the homogeneous classes outperformed those from the mixed classes by about 2 months on a grade-equivalent scale. In the years that followed, hundreds of other researchers carried out similar experiments, and dozens of reviewers attempted to make sense of their findings.

The research reviewers, however, have painted at least four different pictures of the experimental results. Each of the pictures comes from a different era, and each reflects the educational concerns of its times. Each of the pictures also clashes with the other pictures in the set. Viewed together, the four portraits show that research reviewers sometimes see different things in the same studies. Although research experimentation is a science, research reviewing is too often a subjective art.

The original picture of the research comes down to us from the late 1920s when the mental testing movement was at its height in American education. Mental tests had just proven their value in the evaluation of recruits during

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World War I, and many mental testers expected even greater benefits from the use of tests for selection and placement of children in schools. Reviewers of the time shared the optimism about testing, and not surprisingly, they had positive things to say about ability grouping. Their most important conclusions, repeated in review after review in the early 1930s, was that grouping led to better school outcomes only when ability groups worked with methods and materials that suited their aptitude levels. The reviewers also noted that grouping programs had little or no effect when groups at all levels used the same methods and materials.

In the 1930s, John Dewey's philosophy of progressive education became an important influence on American schools, and with its rise, enthusiasm about grouping began to fade. Progressive educators held that the social spirit of the classroom did as much for children as formal instruction did, and they criticized grouping programs for fostering undemocratic feeling and traditional content teaching. Their reviews of the research on ability grouping focused on negative effects. Reviews of the time reported that students learned less and also declined in self-concept and leadership skills in grouped classes.

During the 1950s, the pendulum of opinion about grouping began to swing back. The United States and Russia were fighting a cold war for scientific and technological supremacy, and American schools were expected to contribute to the struggle by emphasizing academic and scientific excellence. Reviewers did their part by re-examining research results on grouping. The new reviews reported that higher aptitude youngsters made notable gains when taught in special enriched and accelerated classes. The reviewers reported that accelerated and enriched classes helped talented children academically and also seemed to have no detrimental effects on their social and emotional adjustment.

The civil rights movement of the 1960s inspired researchers to think more deeply about questions of educational equity, and it led ultimately to still another re-evaluation of grouping research. After the 1960s many reviewers reported seeing a different pattern in the research results on grouping. In *Keeping Track*, Jeannie Oakes expressed this newer point of view when she wrote that no one benefits from ability grouping and that children who are in the middle and lower groups clearly suffer a loss in achievement, academic motivation, and self-esteem.

Are any of these portraits accurate? Or do they each contain a bit of the truth? Until recently, there was no scientific way to answer such questions. Research reviews were the last word in research interpretation. When research reviewers disagreed, appeal to a higher authority was impossible.

Scientific Reviews of Research

The situation changed dramatically during the 1970s. In his 1976 presidential address to the American Educational Research Association, Gene V. Glass urged reviewers to abandon their subjective approach and to adopt instead rigorously scientific standards for research reviews. Glass's address had a powerful impact. It helped transform the art of research reviewing into a science.

Glass used the term *meta-analysis* to describe the new approach. Reviewers who use meta-analytic methods first locate studies of an issue by clearly specified, objective procedures. They then characterize the outcomes and features of these studies in quantitative terms. Finally, they use statistics to describe findings and to relate characteristics of the studies to outcomes. This meta-analytic approach helps reviewers to maintain objectivity and to describe precisely the benefits and losses associated with various educational alternatives.

Several research groups have carried out meta-analyses on grouping findings. Among the most comprehensive analyses are those carried out by Robert Slavin at Johns Hopkins University and those conducted by my research group at the University of Michigan. These meta-analyses show that different grouping programs produce different effects. Some programs have little or no effect on students, other programs have moderate effects, and still other programs have large effects. The key distinction is among (a) programs in which all ability groups follow the same curriculum; (b) programs in which all groups follow curricula adjusted to their ability; and (c) programs that make curricular and other adjustments for the special needs of highly talented learners.

Grouping Without Curricular Adjustment

Some school administrators think that it is easier for teachers to teach and for learners to learn in classes where students resemble one

James A. Kulik, Ph.D., is at the University of Michigan Center for Research on Learning and Teaching, Ann Arbor, Michigan.

another in learning rate. They therefore assign same-grade students to classes by aptitude. The high, middle, and low classes in many of the programs use the same text materials and follow the same basic course of study. The traditional name for this approach is XYZ *grouping*, but XYZ classes have also been called *multilevel*, *multitrack*, and *homogeneous classes*. Robert Slavin of Johns Hopkins University calls the approach *ability-grouped class-assignment*.

Although small school systems were experimenting with XYZ classes at the turn of the century, Detroit in 1919 became the first large city to introduce a formal XYZ plan. Teachers in the Detroit schools tested all children at the start of Grade 1 and placed them by test results into X, Y, and Z groups. The top 20 per cent went to the X classes, the middle 60 per cent to Y classes, and the bottom 20 per cent to Z classes. The X, Y, and Z groups studied from the same texts and followed the same course of study. This model became popular throughout the country both for all-day programs of grouping in elementary schools and for single-subject grouping in high schools. No other approach to grouping has been the subject of more research scrutiny over the years.

Our meta-analyses at Michigan covered 51 separate studies of XYZ classes, and the Johns Hopkins analyses covered 47 studies. Both analyses reached the same conclusion about lower and middle ability students: These students learn the same amount in XYZ and mixed classes. The evidence from the higher aptitude groups was less clear. Our meta-analyses at Michigan found that higher aptitude learners make slightly larger gains in XYZ programs. A higher aptitude student who gained 1.0 years on a grade-equivalent scale after a year in a mixed class would gain 1.1 years in an XYZ class. The Johns Hopkins meta-analysis suggested that gains for higher aptitude students were equal in XYZ and mixed classes.

Some of the studies of XYZ classes examined student self-concepts. Our meta-analysis showed that the average scores on self-esteem scales were nearly identical for students from XYZ and mixed classes. Nonetheless, XYZ classes had a small effect on student self-esteem. We found that self-esteem went up slightly for low-aptitude learners in XYZ programs, and it went down slightly for high-aptitude learners. Brighter children lost a little of their self-assurance when they were put into classes with equally talented children. Slower children gained a little in self-confidence when they were taught in classes with other slower learners.

Why were the effects of XYZ classes so small? The main problem with XYZ classes is probably their curricular uniformity. School personnel are usually careful in placing children into high, middle, and low classes, but they seldom adjust the curriculum to the ability levels of the classes. For example, children in the high group in a Grade 5 program may be ready for work at the sixth grade level; children in the middle group are usually ready for work at the fifth grade level; and children in the low group may need remedial help to cover fifth grade material. But all groups work with the same materials and follow the same course of study in most XYZ classes. XYZ programs are thus programs of differential placement but not differential treatment.

Grouping With Curricular Adjustment

Unlike XYZ plans, programs of cross-grade and within-class grouping provide different curricula for children at different ability levels. Both group placement and curricula vary with student aptitude in these programs.

The best known approach to cross-grade grouping is the Joplin plan, which was first used during the 1950s for reading instruction in the Joplin, Missouri, elementary schools. During the hour reserved for reading in the Joplin schools, children in Grades 4, 5, and 6 broke into nine different groups that were reading at anything from the Grade 2 to Grade 9 level. The children went to their reading classes without regard to their regular grade placement but returned to their regular age-graded classrooms at the end of the hour. Almost all formal evaluations of cross-grade grouping involve the Joplin plan for reading instruction in elementary schools.

A popular model for within-class grouping of children in arithmetic was also developed in the 1950s. A teacher following the model would use test scores and school records to divide her class into three groups for their arithmetic lessons, and she would use textbook material from several grade levels to instruct the groups. The high group in Grade 6, for example, would use texts from Grades 6, 7, and 8; the middle group would use texts from Grades 5, 6, and 7; and the low group would use texts from Grades 4, 5, and 6. The teacher would present material to one group for approximately 15 minutes

Guidelines From Meta-Analytic Studies of Ability Grouping

Guideline One:

Although some school programs that group children by ability have only small effects, other grouping programs help children a great deal. Schools should therefore resist calls for the wholesale elimination of ability grouping.

Research support: The effect of a grouping program depends on its features. It is important to distinguish among programs that (a) make curricular and other adjustments for the special needs of highly talented learners, (b) make curricular adjustments for several ability groups at a grade level, and (c) provide the same curriculum for all ability groups in a grade.

Guideline Two:

Highly talented youngsters profit greatly from work in accelerated classes. Schools should therefore try to maintain programs of accelerated work.

Research support: Talented students from accelerated classes outperform nonaccelerates of the same age and IQ by almost one full year on the grade-equivalent scales of standardized achievement tests.

Guideline Three:

Highly talented youngsters also profit greatly from an enriched curriculum designed to broaden and deepen their learning. Schools should therefore try to maintain programs of enrichment.

Research support: Talented students from enriched classes outperform control students from conventional classes by 4 to 5 months on grade-equivalent scales.

Guideline Four:

Bright, average, and slow youngsters profit from grouping programs that adjust the curriculum to the aptitude levels of the groups. Schools should try to use ability grouping in this way.

Research support: Cross-grade and within-class programs are examples of programs that provide both grouping and curricular adjustment. Children from such grouping programs outperform control children from mixed classes by 2 to 3 months on grade-equivalent scales.

Guideline Five:

Benefits are slight from programs that group children by ability but prescribe common curricular experiences for all ability groups. Schools should not expect student achievement to change dramatically with either establishment or elimination of such programs.

Research support: In XYZ grouping, all ability groups follow the same course of study. Middle and lower ability students learn the same amount in schools with and without XYZ classes. Higher ability students in schools with XYZ classes outperform equivalent students from mixed classes by about one month on a grade-equivalent scale.

before moving on to another group. Other approaches to within-class grouping are possible, but almost all controlled evaluations examine within-class programs that follow this model.

Both the Michigan and Johns Hopkins meta-analyses found that cross-grade and within-class programs usually produce positive results. The Michigan analysis, for example, covered 14 studies of cross-grade grouping and 11 studies of within-class grouping. More than 80 per cent of the studies of each type reported positive results. The average gain attributable to cross-grade or within-class grouping was between 2 and 3 months on a grade equivalent scale. The typical pupil in a mixed-ability class might gain 1.0 years on a grade-equivalent scale in a year, whereas the typical pupil in a cross-grade or within-class program would gain 1.2 to 1.3 years. Effects were similar for high, middle, and low aptitude pupils.

Cross-grade and within-class programs appear to work because they provide different curricula for pupils with different aptitude. In cross-grade programs, students move up or down grades to ensure a match between their reading ability and their reading instruction. In within-class programs, teachers divide students into ability groups so that they can work on different materials with children of differing ability levels. Curriculum varies with student aptitude in these programs. The programs thus differ in an important respect from multilevel classes.

Special Accelerated and Enriched Classes

American education has a long tradition of offering special classes for students with special needs. Schools offer special classes for children who are physically handicapped, emotionally or socially maladjusted, lacking in proficiency in English, and so on. Many educators also look on gifted and talented children as learners with special needs. Schools have traditionally used two different approaches with such children: acceleration and enrichment.

The first classes devised especially for gifted and talented children were accelerated ones. The Cambridge Double Track Plan of 1891, for example, put bright children into special classes that covered the work of six years in four, and the special-progress classes of New York City, established in 1900, allowed bright pupils to complete the work of three years in two. Other

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school systems introduced other forms of acceleration early in the century, and by the 1920s accelerated instruction seemed to be established as the basic method for dealing with gifted school children.

By the 1920s, however, some educators began to question the wisdom of accelerating children through their school work. Their main concern was that accelerated programs might not meet children's emotional and social needs, whereas programs of enriched instruction might meet such needs. In a program of enrichment that Leta Hollingworth set up in the New York City schools in 1916, for example, gifted and talented children did not simply follow a telescoped regular curriculum. Instead, they spent about half of their school hours working on the prescribed curriculum, and about half pursuing enriching activities. In Hollingworth's class for seven- to nine-year olds, enriching activities included conversational French, biography, history of civilization, and a good deal of extra work in science, mathematics, English composition, and music.

Our meta-analysis covered 23 studies of acceleration. The studies compared the achievement of equivalent students in accelerated classes and nonaccelerated control classes. All of the studies examined moderate acceleration of a whole class of students rather than acceleration of individual children. In each of the comparisons involving students who were initially equivalent in age and intelligence, the accelerates outperformed the nonaccelerates. In the typical study, the average superiority for the accelerates was nearly one year on a grade-equivalent scale of a standardized achievement test.

Our meta-analysis also covered 25 studies of enriched classes for highly talented students. Twenty-two of the 25 studies found that talented students achieved more when they were taught in enriched rather than regular mixed-ability classes. In the average study, students in the enriched classes outperformed equivalent students in mixed classes by about 4 to 5 months. Children receiving enriched instruction gained 1.4 to 1.5 years on a grade-equivalent scale in the same period during which equivalent control children gained only 1.0 year.

Why do these classes have such strong effects? First, the adjustment in curriculum in accelerated and enriched classes is substantial because the children in these classes are unusually talented academically. Second, special resources are usually available for enriched and accelerated classes. The teachers of enriched and accelerated classes often have special training for work with gifted and talented students. Parents of youngsters in these classes sometimes band together in formal or informal networks to support their children. Special funding is sometimes available for these classes. Any of these resources could add to the success of accelerated and enriched classes.

What About Tracking?

Research reviewers have not conducted meta-analyses of findings on curricular tracking because almost no experimental studies are available on the topic. Instead of comparing tracked versus untracked high schools, researchers interested in tracking have compared student performance or teacher behaviors in high and low tracks. Although not without interest, such comparisons shed no light on the relative effectiveness of tracked versus untracked high schools.

Jeannie Oakes, in her book *Keeping Track*, uses research on ability grouping in her critique of tracking. Unfortunately, the findings that she cites come from studies of XYZ classes. Studies of XYZ classes are not directly relevant to the question of curricular tracking because XYZ classes follow a common curriculum whereas curricular tracks by definition do not. To evaluate adequately the effectiveness of high schools with tracks, we need controlled studies comparing the performance of initially equivalent students who were taught in tracked and untracked classes.

Conclusion

The questions that people ask about grouping are not easy to answer. Do children benefit from it? Who benefits most? Does grouping harm anyone? How? Why? The answers depend on the type of grouping program. Results differ in programs that (a) group students by aptitude but prescribe a common curriculum for all groups; (b) group students by aptitude and prescribe different curricula for the groups; and (c) place highly talented students into special enriched and accelerated classes that differ from other classes in both curricula and other resources. Benefits from the first type of program are positive but very small. Benefits from the second type are positive and larger. Benefits from the third type of

program are positive, large, and important.

These results are relevant to Jeannie Oakes's call for the elimination of all forms of ability grouping from American schools. Meta-analytic evidence suggests that this proposed reform could greatly damage American education. Teachers, counselors, administrators, and parents should be aware that student achievement would suffer with the total elimination of all school programs that group students by aptitude.

The harm would be relatively small from the simple elimination of XYZ programs in which high, middle, and low classes cover the same basic curriculum. If schools replaced all their XYZ classes with mixed ones, the achievement level of higher aptitude students would fall slightly, but the achievement level of other students would remain about the same. If schools eliminated grouping programs in which all groups follow curricula adjusted to their ability, the damage would be greater, and it would be felt more broadly. Bright, average, and slow students would suffer academically from elimination of such programs. The damage would be greatest, however, if schools, in the name of de-tracking, eliminated enriched and accelerated classes for their brightest learners. The achievement level of such students falls dramatically when they are required to do routine work at a routine pace. No one can be certain that there would be a way to repair the harm that would be done if schools eliminated all programs of acceleration and enrichment.

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proteins that trigger a specific somatic expression within the system. Whereas genes provide us with our own unique menu, the environment makes the actual selection within that range of choice. Any reference to a "high-IQ" genes must be seen as a misnomer because the discernible characteristics of an organism always depend on its particular environmental history. As teachers at home or at school we must be aware that the decisions for environmental intervention, that is, how we structure the environment for children, change both neurological and biological structure.

Environmental interaction with the genetic program of the individual occurs whether planned or left to chance. By conservative estimates, this interaction can result in a 20-point difference in measured intelligence; some allow for a 40-point variation or even more. For example, two individuals with approximately the same genetic capacity for developing intelligence, could be regarded as potentially gifted or as educably retarded, depending on the environment with which they interact. Those who work with gifted children must acquire an understanding of the power of this interaction between the organism and the environment.

The Brain and Giftedness

To understand how some individuals become gifted and others do not, we need to become familiar with the basic structure and function of the human brain. At birth the human brain contains some 100 to 200 billion brain cells. Each neural cell is in place and ready to be developed, ready to be used for actualizing the highest levels of human potential. With a very small number of exceptions, all human infants come equipped with this marvelous, complex heritage. While we never develop more neural cells, it is hardly necessary, as those we have, if used, would allow us to process several trillion bits of information in our lifetime. It is estimated that we actually use less than 5% of this capability. How we use this complex system becomes critical to our development of intelligence and personality, and to the very quality of life experienced by us as we grow.

Characteristics of Gifted Individuals

When the brain becomes more accelerated and integrative in its functions, we find the individual expressing characteristics that we identify with high intelligence. Some of those characteristics can be seen to be the direct result of changes in the brain structures. For example, the amount of dendritic branching and the number of dendritic spines increase, thus enhancing the potential for interconnections

between neurons. The neurons then become biochemically richer, allowing for more complex patterns of thought, and the size of the synaptic contacts increases, allowing faster and more complex communication within the system. More use is then made of the activity of the prefrontal cortex of the brain, which allows more future planning, insightful thinking, and intuitive experiences. These changes will continue to occur as long as appropriate stimulation is available. One of the most consistently noted concepts coming from brain research is the dynamic nature of the brain's growth. We must continue to challenge the individual at that individual's level of development or growth cannot continue; the individual will indeed lose power.

Summary

In this discussion we have seen that the interaction between the unique genetic patterns of all individuals and their environment results in a whole-brain function we call intelligence. Enriching and appropriately stimulating that interaction results in high levels of function that we refer to as giftedness. While giftedness expresses itself in many ways, we can now postulate from the brain research that individuals with high levels of intelligence—gifted individuals—show measurable biological differences, not at birth, but as the result of this continuous interaction.

What we believe about how people become intelligent will influence the way we plan for their educational development. If we believe that individuals come to us already gifted, that they were born that way, we will probably feel that we can do little to influence their development. We may believe enrichment will be sufficient for people of this ability to "get by on their own." If, however, we consider giftedness as a dynamic process in which a person's innate ability is in constant and continuous interaction with the environment, and if we believe that the strength of that interaction will determine just how much ability this person will be able to develop, we will become highly sensitive to the needs he or she expresses. Our awareness will allow us to support and challenge this developing intellect. Without such efforts, intellectual abilities will be wasted and untold potential will never be realized. For our children, it is a matter of who they are and who they may become. Children are not born gifted, only with a potential for such development.

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Barbara Clark is president of the National Association for Gifted Children. She may be reached at the Department of Education, California State University at Los Angeles ,5151 State University Drive, Los Angeles, CA 90032.

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